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PERFORMANCE MONITORING SYSTEM: SUMMARY OF LOCK  
STATISTICS FOR JULY-SEPTEMBER 1984(U) CORPS OF  
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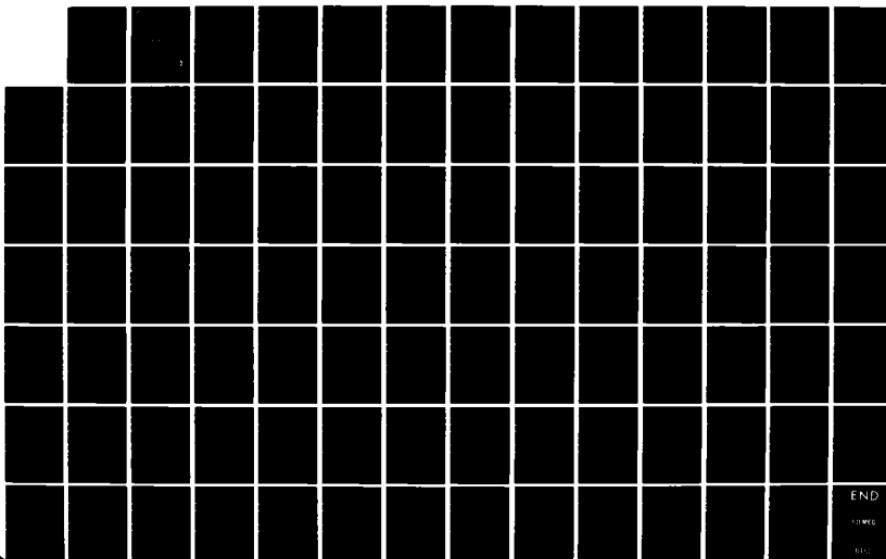
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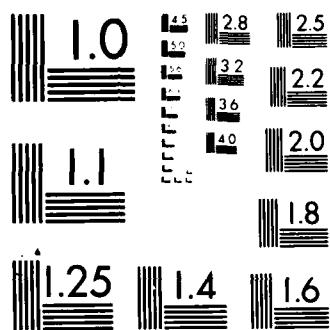
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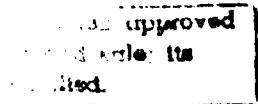
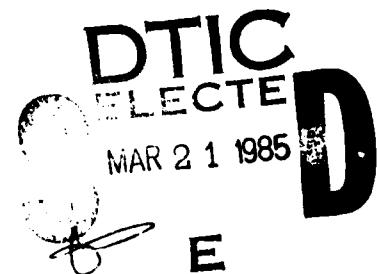
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**Performance Monitoring System:  
Summary of  
Lock Statistics for  
July - September 1984**

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February 1985

Summary Report 85-SR-1

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## UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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18. SUPPLEMENTARY NOTES Although the data are edited, the United States Government does not warrant its suitability for all purposes and does not assume responsibility for results of computations performed with these data.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) lock Performance Monitoring System PMS statistics		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Lock Performance Monitoring data are collected at Corps locks by lock operators from observation and information provided by waterway operator. This quarterly summary is an overview of the collected statistics.		

**PERFORMANCE MONITORING SYSTEM  
SUMMARY OF LOCK STATISTICS  
JULY 1984 - SEPTEMBER 1984**

## PREFACE

This report is a product of the Navigation Data Management and Applications Branch of the U. S. Army Engineer Institute for Water Resources (WRSC-IWR). The information is compiled from statistics collected at the Corps locks in support of the lock Performance Monitoring System (PMS).

The study is managed by Mrs. Marilyn V. Fleming under the supervision of Mr. Francis M. Sharp, Chief of the WRSC-IWR Navigation Data Management and Applications Branch, and Dr. Lloyd G. Antle, Chief of the WRSC-IWR Navigation Division. The Office of the Chief of Engineers (OCE) sponsors are Mr. Henry W. Campbell Jr., DAEN-CWO-M, and Mr. Robert M. Daniel, DAEN-CWP-G.

Requests to update or change the distribution, comments and questions can be directed to Frank Sharp (202-355-2240 or FTS 385-2240) or Marilyn Fleming at the same telephone number. The information is produced and distributed quarterly.

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## Introduction

The lock Performance Monitoring System (PMS) is a part of the Inland Navigation Systems Analysis (INSA) program and encompasses the collection, editing, maintenance and analysis of data collected at all Corps-owned and operated locks. The data have been collected since March of 1975 and consist of information describing the traffic through the locks as well as the physical aspects of lockages. The quarterly summary of selected statistics presented in the appendix provides an overview of the traffic and operation at each lock. The quarterly report is presented as a set of three tables for each Corps District. Information reported for each lock and chamber includes:

TABLE 1. A listing providing the name of the lock, the river on which the lock is and its dimensions. In those cases where there is no quarterly information, this table will be the only display for the district.

TABLE 2. A table providing, by direction and total, the number of tows, commercial vessels other than tows, recreational vessels, barges (empty and loaded), commercial lockages, recreational lockages and tonnage.

TABLE 3. A summary of approach, entry, chambering and exit times (maximum, minimum and average) and the number of delays, total delay time, maximum delay time and average delay time.

Although the summary information will be computed and displayed for chambers at which there is data for only one or two months of the quarter, the fact is noted on the report.

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERDC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
EL	NEW ORLEANS	LOWER MISS VALLEY	7/84 8/84 9/84
RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
ATCHAFALAYA RIVER	11-BERWICK LOCK	0307/0045/11.0	
BAYOU TECHE	31-KEYSTONE LOCK	0162/0036/12.0	
FRESHWATER BAYOU	41-FRESHWATER BAYOU LOCK	0600/0084/15.0	
GULF INTRACOASTAL	1-PORT ALLEN LOCK	1198/0084/15.0	
	2-BAYOU SORREL LOCK	0800/0056/16.0	
	3-INNER HRBR NAVIGATION CANL LK	0646/0075/40.0	
	4-ALGIERS LOCK	0797/0075/15.0	
	5-HARVEY LOCK	0425/0075/14.0	
	6-BAYOU BOEUF LOCK	1158/0075/15.0	
	7-VERMILLION LOCK	1200/0056/14.0	
	8-CALCASIEU LOCK	1205/0075/15.0	
	21-SCHOONER BAYOU CONTROL STRUCT	9999/0075/14.0	
	22-CATFISH POINT CONTROL STRUCT	9999/0056/16.0	
	23-CALCASIEU SALT WATER BARRIER	9999/0056/15.0	
OLD RIVER	51-OLD RIVER LOCK	1200/0075/15.0	
RED RIVER	1-RED RIVER LOCK & DAM #1	0685/0084/ 9.0	

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ENID	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
93	ST. LOUIS	LOWER MISS VALLEY	7/84 8/84 9/84
RIVER	CODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
KASKASKIA RIVER	1-KASKASKIA RIVER NAVIGATION LK	0610/0084/12.0	
MISSISSIPPI RIVER	24-LOCK & DAM 24	0610/0110/12.0	
	25-LOCK & DAM 25	0610/0110/12.0	
	26-LOCK & DAM 26	0610/0110/12.0	
	26-LOCK & DAM 26 AUX 1	0380/0110/12.0	
	27-CHAIN OF ROCKS LOCK & DAM 27	1210/0110/12.0	
	27-CHAIN OF ROCKS LK & DM 27 AX1	0610/0110/12.0	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

E&G #	DISTRICT NAME ST. LOUIS	DIVISION NAME LOWER MISS VALLEY						MONTHS REPORTED 7/84 8/84 9/84					
		TOWS	VESSL RECRTRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGES COMMER	LOCKGES RECRTRN	LOCKGES OTHER	LOCKGES TOTAL	TONNAGE (KTONS) (NAV, DPN, ETC)
<b>NEBRASKA RIVER</b>													
NEBRASKA RIVER NAVIGATION LK		***											
UPBOUND STATISTICS		197	422	46	665	631	125	756	245	173	6	444	117
DOWNBOUND STATISTICS		182	431	81	694	107	633	746	263	213	8	484	947
TOTALS		379	853	127	1359	738	758	1496	508	406	14	928	1064
<b>MISSISSIPPI RIVER</b>													
LOCK & DAM 24		***											
UPBOUND STATISTICS		443	349	30	822	3078	2354	5442	719	232	16	961	3481
DOWNBOUND STATISTICS		453	379	24	856	281	5024	5305	735	236	12	983	7072
TOTALS		896	728	54	1678	3359	7388	10747	1454	466	22	1944	10554
LOCK & DAM 25		***											
UPBOUND STATISTICS		443	630	56	1129	3065	2383	5448	709	321	53	1083	3227
DOWNBOUND STATISTICS		453	652	49	1154	286	5017	5303	709	328	56	1092	7064
TOTALS		896	1282	105	2283	3351	7400	10751	1412	649	106	2175	10591
LOCK & DAM 26		***											
UPBOUND STATISTICS		691	2	17	710	4662	3580	8242	1219	0	0	1219	5359
DOWNBOUND STATISTICS		654	5	12	671	499	7093	7572	1147	1	1	1149	10041
TOTALS		1345	7	29	1381	5161	10673	15634	2366	1	1	2368	15401
LOCK & DAM 26 AUX 1		***											
UPBOUND STATISTICS		227	252	89	568	283	300	583	764	120	12	456	531
DOWNBOUND STATISTICS		231	277	127	641	288	386	674	437	144	9	590	564
TOTALS		464	529	216	1209	571	686	1257	601	264	21	1086	1105
LOCK & DAM 27		***											
UPBOUND STATISTICS		909	30	97	1036	5026	4039	9065	932	12	14	956	6265
DOWNBOUND STATISTICS		874	45	78	957	708	7651	8359	863	17	5	687	10995
TOTALS		1743	75	175	1993	5734	11690	17424	1795	31	19	1845	17260

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC 63	DISTRICT NAME ST. LOUIS	DIVISION NAME LOWER MISS VALLEY			MONTHS REPORTED 7/84 8/84 9/84								
		TOWS	VESSL RECRDN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES	LOCKGS COMMER	LOCKGS RECRDN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (TONS) (NAV, OPN, ETC)
<b>MISSISSIPPI RIVER</b>													
<b>TRAIN OF BOATS LF &amp; DM 07 84-1 188</b>													
LEBELING STATISTICS	316	176	162	654	484	316	800	461	76	17	554	484	
WINNEBAGO STATISTICS	356	185	291	742	351	676	1027	534	83	24	641	991	
TOTAL	672	361	363	1396	835	992	1827	995	159	41	1195	1475	

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

6800 DISTRICT NAME DIVISION NAME MONTHS REPORTED  
83 ST. LOUIS LOWER MISS VALLEY 7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES									
APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY			DELAY	DELAY	
	ENTRY	CHAMBER	EXIT	: TOWS	TIME	Avg			Max
MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	MIN AVG MAX	(TOWS)	(TOWS)	MIN AVG		

## MISSOURI RIVER

1454 RIVER NAVIGATION L 1 4 104 1 4 9 26 1 3 22 46 71 47

## MISSISSIPPI RIVER

LOCK 6 SAM 24	1	7	83	1	7	35	4	9	42	1	15	63 :	672	17777	8.0	2374
LOCK 4 SAM 25	1	7	96	1	7	38	4	8	31	1	12	46 :	865	144645	160	1481
LOCK 5 SAM 26	1	5	54	1	9	45	4	12	29	1	11	74 :	1340	350447	160.0	1364
LOCK 3 SAM 26 AX 1	1	6	95	1	4	45	4	11	31	1	6	65 :	453	24571	53.0	1461
PHAL 18 RECH LOCK 9 SAM 27	1	10	57	1	7	36	2	11	34	1	7	27 :	1228	66981	51.1	1505
PHAL 19 RECH LOCK 9 & 27 AX	1	6	79	1	3	60	5	10	32	1	3	48 :	319	18802	28.0	966

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

ERD	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
84	ALBION	LOWER MISS VALLEY	7/84 8/84 9/84

ERD	LOCK-NAME	LEN/WID/DRAFT (FT/FT/FT)
84	1-JONESVILLE LOCK + 34M	0600/0084/23.4
	2-COLUMBIA LOCK + 34M	0600/0084/27.4
	3-LOCK + 34M +	0268/0055/17.4
	4-LOCK + 34M 3	0268/0055/19.0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

RIVER	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
			7/84	8/84	9/84
ILLINOIS	ROCK ISLAND	NORTH CENTRAL			
		CODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)		
		1-THOMAS J O'BRIEN	1000/0110/12.0		
		2-LOCKPORT LOCK	0600/0110/12.0		
		3-BRANDON ROAD LOCK & DAM	0600/0110/12.0		
		4-DRESDEN ISLAND LOCK & DAM	0600/0110/12.0		
		5-MARSIELLES LOCK & DAM	0600/0110/12.0		
		6-STARRYED ROCK LOCK & DAM	0600/0110/12.0		
		7-PEORIA LOCK & DAM	0600/0110/12.0		
		8-FLAGRANGE LOCK & DAM	0600/0110/12.0		
MISSISSIPPI RIVER		11-LOCK & DAM 11	0600/0110/10.0		
		12-LOCK & DAM 12	0600/0110/10.0		
		13-LOCK & DAM 13	0600/0110/10.0		
		14-LOCK & DAM 14	0600/0110/10.0		
		14-LOCK & DAM 14 AUXILIARY 1	0320/0080/10.0		
		15-LOCK & DAM 15	0600/0110/10.0		
		15-LOCK & DAM 15 AUXILIARY 1	0360/0110/10.0		
		16-LOCK & DAM 16	0600/0110/10.0		
		17-LOCK & DAM 17	0600/0110/10.0		
		18-LOCK & DAM 18	0600/0110/10.0		
		19-LOCK & DAM 19	1200/0110/10.0		
		19-LOCK & DAM 19 AUXILIARY 1	1350/0110/10.0		
		20-LOCK & DAM 20	0600/0110/10.0		
		21-LOCK & DAM 21	0600/0110/10.0		
		22-LOCK & DAM 22	0600/0110/10.0		

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
			7/84	8/84	9/84
RIVER		LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)		
FOX RIVER		11-DE PERE LOCK & DAM	0146/0036/ 6.0		
		12-LITTLE KAUKAUNA LOCK & DAM	0146/0036/ 6.0		
		13-RAPIDE CROCHE LOCK & DAM	0146/0036/ 6.0		
		21-KAUKAUNA LOCK 1	0144/0035/ 6.0		
		22 KAUKAUNA LOCK 2	0144/0035/ 6.0		
		23-KAUKAUNA LOCK 3	0144/0031/ 6.0		
		24-KAUKAUNA LOCK 4	0144/0037/ 6.0		
		25-KAUKAUNA LOCK 5	0144/0036/ 6.0		
		32-LITTLE CHUTE LOCK 2	0147/0035/ 6.0		
		33-LITTLE CHUTE COMB LOCKS UPPER	0144/0036/ 6.0		
		34-LITTLE CHUTE COMB LOCKS LOWER	0147/0035/ 6.0		
		35-CEDARS LOCK & DAM	0144/0035/ 6.0		
		41-APPLETON LOCK 1	0145/0034/ 6.0		
		42-APPLETON LOCK 2	0145/0035/ 6.0		
		43-APPLETON LOCK 3	0144/0035/ 6.0		
		44-APPLETON LOCK 4	0144/0035/ 6.0		
		51-MENASHA LOCK & DAM	0144/0034/ 6.0		
THE INLAND ROUTE		11-ALANSON LOCK	0066/0018/ 7.0		
ST MARYS RIVER		1-MACARTHUR LOCK	0800/0080/31.0		
		2-NEW POE LOCK	1200/0110/32.0		
		3-DAVIS LOCK00	1350/0080/31.0		
		4-SABIN LOCK00	1350/0080/31.0		

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
F2	CHICAGO	NORTH CENTRAL	7/84	8/84	9/84
RIVER	LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)		
CHICAGO HARBOR	I-CHICAGO LOCK		0600/0080/22.0		

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOCKAGE FILE FOR THIS PERIOD

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERDC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
F1	BUFFALO	NORTH CENTRAL	7/84      8/84      9/84

ALL TIMES EXPRESSED IN MINUTES

APPROACH	LOCK PROCESSING TIME			EXIT	: DELAYED DELAY			DELAY	DELAY	
	ENTRY	CHAMBER			: TOWS	TIME	Avg			Max
MIN	AVG	MAX	:	MIN	AVG	MAX	:	(TOWS)	(TOWS)	(ALL VSSLS)

BLK ROCK CH/TONAWANDA

BLACK ROCK LOCK	1	1	13	1	1	15	2	10	20	1	1	15	:	0	0	0	48
-----------------	---	---	----	---	---	----	---	----	----	---	---	----	---	---	---	---	----

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC F.	DISTRICT NAME BUFFALO	DIVISION NAME NORTH CENTRAL				MONTHS REPORTED							
						7/84		8/84		9/84			
RIVER/LOCK NAME		TOWS RECRTN	VESSL OTHER	VESSL TOTAL	VESSL EMPTY	BARGS FULL	BARGS TOTAL	BARGES NUMBER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS) (NAV, OPN, ETC)	
<b>BL: ROCK CH/TONAWANDA</b>													
BLACK ROCK LOCK		***											
UPBOUND STATISTICS	2	3935	29	3966	0	2	2	370	730	18	1118	15	
DOWNBOUND STATISTICS	24	3603	9	3636	0	25	25	44	969	22	1035	205	
TOTALS	26	7538	38	7602	0	27	27	414	1699	40	2153	221	

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
FI	BUFFALO	NORTH CENTRAL	7/84      8/84      9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
BLK ROCK CH/TONAWANDA	I-BLACK ROCK LOCK	0650/0070/21.7

TABLE I

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
E4	NORFOLK	NORTH ATLANTIC	7/84      8/84      9/84

ALL TIMES EXPRESSED IN MINUTES

APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY			DELAY	
	ENTRY	CHAMBER	EXIT	: TOWS	TIME	Avg	Max	
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX

## ATLANTIC INTRACOASTAL

GREAT BRIDGE GUARD LOCK	1	3	13	1	3	15	2	5	35	1	4	55	:	401	1617	4.0	32
DISMAL SWAMP																	
DEEP CREEK LOCK	2	4	6	2	5	8	10	10	25	4	5	50	:	0	0	.0	5
SOUTH MILLS LOCK	2	4	5	3	3	6	10	10	12	3	4	5	:	0	0	.0	210

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC E4	DISTRICT NAME NORFOLK	DIVISION NAME NORTH ATLANTIC						MONTHS REPORTED						
					7/84			8/84			9/84			
RIVER/LOCK NAME		TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL (NAV, OPN, ETC)	TONNAGE (KTONS)	
<b>ATLANT INTRCOASTAL</b>														
GREAT BRIDGE GUARD LOCK		***												
UPBOUND STATISTICS	204	1346	74	1624	90	154	244	267	592	29	888	175		
DOWNBOUND STATISTICS	197	1475	67	1739	143	89	232	253	619	33	905	95		
TOTALS	401	2821	141	3363	233	243	476	520	1211	62	1793	271		
<b>DISMAL SWAMP</b>														
DEEP CREEK LOCK		***												
UPBOUND STATISTICS	0	249	1	250	0	0	0	1	112	1	114	0		
DOWNBOUND STATISTICS	0	165	0	165	0	0	0	1	79	1	81	0		
TOTALS	0	414	1	415	0	0	0	2	191	2	195	0		
SOUTH MILLS LOCK		***												
UPBOUND STATISTICS	0	159	0	159	0	0	0	3	79	0	82	0		
DOWNBOUND STATISTICS	0	227	0	227	0	0	0	1	104	1	106	0		
TOTALS	0	386	0	386	0	0	0	4	183	1	188	0		

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
E4	NORFOLK	NORTH ATLANTIC	7/84      8/84      9/84

RIVER	LCODE-LOCK NAME	LEN/MID/DRAFT (FT/FT/FT)
ATLANT INTRCOASTAL	11-GREAT BRIDGE GUARD LOCK	0600/0075/16.0
DISMAL SWAMP	1-DEEP CREEK LOCK	0300/0052/12.0
	2-SOUTH MILLS LOCK	0300/0052/12.0

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
E3	NEW YORK	NORTH ATLANTIC	7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES										
APPROACH	LOCK PROCESSING TIME			: DELAYED			DELAY	DELAY		
	ENTRY	CHAMBER	EXIT	: TOWS	TIME	AVG	MAX			
MIN	AVG	MAX	:	MIN	AVG	MAX	:	MIN	AVG	MAX

## HUDSON RIVER

TROY LOCK & DAM 2 6 20 2 5 20 5 10 20 2 5 15 .. 76 680 3.5 55

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERDC EO	DISTRICT NAME NEW YORK	DIVISION NAME NORTH ATLANTIC				MONTHS REPORTED						
		7/84	8/84	9/84	7/84	8/84	9/84					
RIVER/LOCK NAME	TOWS	VESEL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)

## HUDSON RIVER

TROY LOCK & DAM		***										
UP-BOUND STATISTICS	67	1190	19	1287	0	91	91	116	644	20	780	196
DOWN-BOUND STATISTICS	66	1368	4	1478	85	1	86	109	721	22	852	0
TOTAL	173	2558	14	2765	85	92	177	225	1365	42	1632	196

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

ABC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
	NEW YORK	NORTH ATLANTIC	7/84 8/84 9/84
RIVER		LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
HUDSON RIVER		1-TROY LOCK & DAM	0493/0044/15.0

TABLE I

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
B4	VICKSBURG	LOWER MISS VALLEY	7/84 8/84 9/84

DIVISION NAME  
LOWER MISS VALLEY

**MONTHS REPORTED**

8/84

9/84

7/84

ALL TIMES EXPRESSED IN MINUTES

APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY			DELAY	DELAY
	ENTRY	CHAMBER	EXIT	: TOWS	TIME	Avg		
MIN	AVG	MAX	: MIN	AVG	MAX	: MIN	AVG	MAX

DUCHITA/BLACK RIV

JONESVILLE LOCK & DAM	2	6	17	1	5	47	4	13	34	2	7	40	:	6	21	.4	15
COLUMBIA LOCK & DAM	3	5	14	3	6	62	5	14	27	3	6	30	:	2	25	1.2	15
LOCK & DAM 5	2	4	10	2	4	9	5	6	13	2	6	25	:	8	31	2.8	10
LOCK & DAM 8	1	5	12	1	4	10	5	6	18	4	5	12	:	9	24	2.7	15

TABLE A

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #4	DISTRICT NAME VICKSBURG	DIVISION NAME LOWER MISS VALLEY				MONTHS REPORTED						
						7/84		8/84		9/84		
RIVER/LOCK NAME	TOWS	VESSL	VESSL	VESSL	BARGS	BARGS	BARGES	LOCKES	LOCKES	LOCKES	TONNAGE	
		RECRTN	OTHER	TOTAL	EMPTY	FULL	TOTAL	COMMER	RECRTN	OTHER	TOTAL (TONS) (NAV, DPM, ETC)	
<b>OKLAHOMA CITY RIVER</b>												
<b>JONESVILLE LOCK &amp; DAM</b>												
UPBOUND STATISTICS	26	7	4	37	27	37	64	1	4	7	42	
DOWNBOUND STATISTICS	24	19	5	48	32	25	57	32	6	11	49	
TOTALS	50	26	9	85	59	62	121	63	10	18	91	
<b>COLUMBIA LOCK &amp; DAM</b>												
UPBOUND STATISTICS	9	14	4	27	5	11	16	14	9	2	25	
DOWNBOUND STATISTICS	12	18	1	31	14	9	23	13	14	1	28	
TOTALS	21	32	5	58	19	20	39	27	23	3	53	
<b>LOCK &amp; DAM 6</b>												
UPBOUND STATISTICS	6	19	2	27	0	11	11	7	14	3	24	
DOWNBOUND STATISTICS	5	24	2	31	10	0	10	6	14	3	23	
TOTALS	11	43	4	58	10	11	21	13	28	6	47	
<b>LOCK &amp; DAM 8</b>												
UPBOUND STATISTICS	5	17	1	23	0	10	10	7	14	10	31	
DOWNBOUND STATISTICS	4	19	2	25	8	0	8	8	15	11	24	
TOTALS	9	36	3	48	8	10	18	15	29	21	55	

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

DISTRICT NO.	DISTRICT NAME	DIVISION NAME						MONTHS REPORTED						
		NORTH CENTRAL			7/84			8/84			9/84			
WATER LOCK NAME		TOWS	VESSL RECRDN	VESEL OTHER	VESEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKED COMMERC	LOADGEES RECRDN	LOADGEES OTHER	LOADGEES TOTAL	TONNAGE (TAN, CPN, ETC)	
<b>ILLINOIS</b>														
THOMAS C. BRIEN		***												
UPBOUND STATISTICS		152	4297	46	4475	170	47	217	113	1069	9	1542	57	
DOWNBOUND STATISTICS		122	4320	33	4475	66	138	204	160	1248	8	1416	123	
TOTALS		254	8617	79	8950	236	185	421	373	2317	17	2958	180	
WHITEHORN LOCK		*** ONLY FIRST AND THIRD MONTHS REPORTED												
UPBOUND STATISTICS		21	18	18	49	7	117	124	26	5	1	53	161	
DOWNBOUND STATISTICS		43	35	2	86	122	78	200	42	4	0	42	118	
TOTALS		64	53	12	129	129	195	324	68	5	1	75	286	
WALLOPS ISLAND LOCK & DAM		*** ONLY FIRST AND THIRD MONTHS REPORTED												
UPBOUND STATISTICS		24	21	8	53	9	165	174	75	6	0	43	172	
DOWNBOUND STATISTICS		37	30	3	70	126	48	174	46	5	1	46	87	
TOTALS		61	51	11	123	135	213	248	75	13	1	89	116	
WRECKER ISLAND LOCK & DAM		***												
UPBOUND STATISTICS		194	782	30	1006	276	471	747	108	321	4	555	755	
DOWNBOUND STATISTICS		184	789	33	1006	278	393	671	216	330	6	552	659	
TOTALS		378	1571	63	2012	554	864	1418	444	653	10	1107	1415	
WY-BIELEK'S LOCK & DAM		***												
UPBOUND STATISTICS		241	802	25	1068	525	617	1142	182	345	7	534	1442	
DOWNBOUND STATISTICS		234	802	25	1061	342	722	1064	271	341	7	519	1434	
TOTALS		475	1604	50	2129	867	1339	2206	553	686	14	1253	2883	
STAFFORD ROCK LOCK & DAM		***												
UPBOUND STATISTICS		260	874	13	1157	699	653	1352	305	328	3	637	1113	
DOWNBOUND STATISTICS		252	865	28	1145	345	918	1283	293	384	6	680	1405	
TOTALS		512	1739	41	2302	1044	1571	2615	598	712	9	1320	1519	
WYOMING ROCK & DAM		***												
UPBOUND STATISTICS		323	644	46	1013	1191	1166	1357	427	304	21	754	1866	
DOWNBOUND STATISTICS		323	654	44	1021	468	1730	2198	416	336	21	766	2544	
TOTALS		646	1298	90	2034	1659	1896	4555	843	640	43	1520	4398	

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERL #	DISTRICT NAME 400 ISLAND	DIVISION NAME NORTH CENTRAL				MONTHS REPORTED								
						7/84		8/84		9/84				
ROUTE/LOCK NAME		TONS RECHRTN	VESSL OTHER	VESSL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECHRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (NAV, OPN, ETC)		
<b>ILLINOIS</b>														
<b>LOCK &amp; DAM 1</b>		***												
UPBOUND STATISTICS		747	16	14	633	1478	1270	2748	426	153	31	610	2105	
DOWNBOUND STATISTICS		305	361	12	681	439	2130	2569	375	186	57	618	3071	
TOTALS		612	577	26	1314	1917	3400	5317	801	339	88	1228	5176	
<b>MISSISSIPPI RIVER</b>														
<b>LOCK &amp; DAM 11</b>		***												
UPBOUND STATISTICS		186	1053	59	1689	196	1436	3416	393	717	10	1120	2074	
DOWNBOUND STATISTICS		287	1418	23	1718	118	3212	3330	382	741	15	1138	4578	
TOTALS		573	2471	82	3407	2098	4648	6746	775	1458	25	2258	6651	
<b>LOCK &amp; DAM 12</b>		***												
UPBOUND STATISTICS		304	1173	22	1356	2086	1584	3670	431	634	14	1079	2271	
DOWNBOUND STATISTICS		296	1045	14	1056	113	3401	3514	412	647	20	1075	4793	
TOTALS		600	2218	36	2412	2199	4985	7184	843	1281	34	2158	7064	
<b>LOCK &amp; DAM 13</b>		***												
UPBOUND STATISTICS		303	1176	24	1603	2049	1597	3646	436	588	6	1039	2290	
DOWNBOUND STATISTICS		301	1094	14	1610	136	3405	3541	425	604	17	1046	4802	
TOTALS		605	2270	38	3213	2185	5002	7187	861	1192	23	2076	7093	
<b>LOCK &amp; DAM 14</b>		***												
UPBOUND STATISTICS		415	511	11	952	2439	1848	4287	636	336	4	576	2657	
DOWNBOUND STATISTICS		419	481	20	931	171	4004	4175	627	338	12	577	5414	
TOTALS		834	992	31	1883	2610	5852	8461	1263	674	16	1953	8071	
<b>LOCK &amp; DAM 14 ALBEMARLE</b>		***												
UPBOUND STATISTICS		1107	0	2559	0	0	0	0	0	565	0	565	0	
DOWNBOUND STATISTICS		1455	0	2455	0	0	0	0	0	584	0	584	0	
TOTALS		2562	0	5014	0	0	0	0	0	1149	0	1149	0	

ITEM 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

LOCK	DISTRICT NAME	REVISION NAME						PERIOD REPORTED							
		NORTH CENTRAL						7/84			9/84				
OVERLOCK NAME		TOWS	VESEL RECRNT	VESEL OTHER	VESEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKS COMMER	LOCKS RECRNT	LOCKS OTHER	LOCKS TOTAL	TONNAGE (NAV, OPN, ETC)		
MISSISSIPPI RIVER															
LOCK & DAM 15															
UPBOUND STATISTICS		417	31	42	490	2239	1935	4174	118	11	3	49	196		
DOWNBOUND STATISTICS		420	7	35	462	287	3817	4104	111	7	7	315	5371		
TOTALS		837	38	77	952	1526	5752	8278	242	17	17	1474	8157		
LOCK & DAM 16 AUXILIARY 1															
UPBOUND STATISTICS		66	2180	34	2285	40	54	54	169	801	5	915	68		
DOWNBOUND STATISTICS		58	2167	58	2283	66	15	51	117	798	5	920	21		
TOTALS		124	4347	97	4568	106	69	175	286	1599	10	1835	90		
LOCK & DAM 16															
UPBOUND STATISTICS		450	418	47	915	2408	2134	4542	659	258	10	986	3127		
DOWNBOUND STATISTICS		452	416	42	912	333	4063	4396	671	313	14	999	5695		
TOTALS		902	834	69	1827	2741	6197	8938	1331	561	24	1987	5822		
LOCK & DAM 17															
UPBOUND STATISTICS		379	241	23	643	2332	2255	4587	621	218	15	854	3282		
DOWNBOUND STATISTICS		390	241	11	642	252	4196	4448	645	246	27	878	5630		
TOTALS		759	482	34	1285	2584	6451	9035	1226	464	42	1732	8162		
LOCK & DAM 18															
UPBOUND STATISTICS		398	458	34	890	2435	2237	4612	634	361	5	940	3260		
DOWNBOUND STATISTICS		397	418	32	847	283	4313	4596	610	355	16	984	6150		
TOTALS		795	876	66	1737	2718	6550	9208	1237	716	21	1974	9350		
LOCK & DAM 19															
UPBOUND STATISTICS		383	294	51	728	2639	2233	4871	416	136	5	557	1298		
DOWNBOUND STATISTICS		399	322	41	762	293	4470	4762	416	146	9	511	6263		
TOTALS		782	616	92	1490	2932	6703	9633	822	282	14	1128	7561		
LOCK & DAM 19 AUXILIARY 1															
NO DATA RECORDED FOR THIS LOCK															
LOCK & DAM 20															
UPBOUND STATISTICS		384	274	62	720	2688	2178	4866	683	191	17	838	3235		
DOWNBOUND STATISTICS		400	308	57	751	269	4546	4809	687	222	18	917	6173		
TOTALS		784	582	115	1481	2957	6718	9575	1067	413	35	1615	9649		

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ROUTE/LOCK NAME	TOWS	DIVISION NAME		MONTHS REPORTED					
		VESSL REGATR	VESSL OTHER	7/84	8/84	9/84			
		TOTAL	EMPTY	FULL	TOTAL	COMMERC ERCRTRN	LOCKGES OTHER	LOCKGES TOTAL	TONNAGE (KTONS)
MISSISSIPPI RIVER									
MS. - DAM 21	***								
FEDERAL STATISTICS	412	287	51	760	2810	2272	5082	700	222
MISSISSIPPI STATISTICS	434	315	39	783	302	4710	5011	709	233
STATE	651	552	40	1543	3112	6982	10094	1409	455
MS. - DAM 22	***								
FEDERAL STATISTICS	427	412	31	860	2949	2297	5246	701	215
MISSISSIPPI STATISTICS	436	440	29	907	308	4612	5120	705	245
STATE	655	542	60	1757	3257	7109	10366	1406	460

Note 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

CROSS #	DISTRICT NAME ISLAND	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED											
			7/84			8/84			9/84			10/84		
ALL TIMES EXPRESSED IN MINUTES														
			APPROACH	ENTRY	CHAMBER	EXIT			TOWS	TIME	AVG			
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	TIME	AVG
MISSISSIPPI RIVER														
LOCK & DAM 11			1	4	65	1	4	30	1	10	70	1	8	47
LOCK & DAM 12			1	5	86	1	5	36	1	7	131	1	9	51
LOCK & DAM 13			1	3	62	1	5	31	1	8	55	1	9	133
LOCK & DAM 14			1	5	88	1	6	429	1	8	140	1	12	299
LOCK & DAM 14 MILITARY 1			1	1	1	1	1	2	1	12	75	1	1	2
LOCK & DAM 15			1	9	126	1	8	65	2	10	402	1	16	142
LOCK & DAM 15 MILITARY 1			1	1	17	1	1	13	1	10	142	1	1	22

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROD	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
F4	ROCK ISLAND	NORTH CENTRAL	7/84	8/84	9/84

APPROACH	ALL TIMES EXPRESSED IN MINUTES											
	LOCK PROCESSING TIME			TOWS			TIME			DELAY		
	ENTRY	CHAMBER	EXIT	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	AVG	MAX
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	(ALL VESSELS)	

## MISSISSIPPI RIVER

LOCK & DAM 1	1	7	72	1	6	36	1	8	68	1	13	59	:	577	69622	77.2	760
LOCK & DAM 2	1	9	101	1	7	365	5	9	437	1	13	164	:	484	59013	76.7	1537
LOCK & DAM 3	1	6	84	1	7	38	1	7	64	1	13	49	:	496	55072	69.3	1486
LOCK & DAM 4	1	15	106	1	7	40	3	17	57	1	9	67	:	372	28020	35.8	788
LOCK & DAM 19 (AUXILIARY)	NO DATA RECORDED FOR THIS LOCK																
LOCK & DAM	1	6	87	1	7	41	1	6	66	1	14	87	:	438	45736	58.3	771
LOCK & DAM 21	1	9	138	1	7	73	1	6	83	1	14	89	:	535	61900	71.9	612
LOCK & DAM 22	1	19	129	1	8	37	1	6	63	1	17	531	:	623	155606	179.9	1631

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/34 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

NAME	DIVISION NAME	MONTHS REPORTED
	NORTH CENTRAL	7/84 6/84 9-4

CODE-LOCK NAME	LEN/WID/DRAFT :FT/FT/FT
1-LOCK & DAM 1 MAIN CHBR 1	0400/0056/11.0
1-LOCK & DAM 1 MAIN CHBR 2	0400/0056/11.0
2-LOCK & DAM 2	0600/0110/11.0
2-LOCK & DAM 2 AUXILIARY 1	0500/0110/11.0
3-LOCK & DAM 3	0600/0110/11.0
4-LOCK & DAM 4	0600/0110/11.0
5-LOCK & DAM 5	0600/0110/11.0
6-LOCK & DAM 6	0600/0110/11.0
7-LOCK & DAM 7	0600/0110/11.0
8-LOCK & DAM 8	0600/0110/11.0
9-LOCK & DAM 9	0600/0110/11.0
10-LOCK & DAM 10	0600/0110/11.0
51-ST ANTHONY FALLS UPPER L & D	0400/0056/11.0
52-ST ANTHONY FALLS LOWER L & D	0400/0056/11.0
55-LOCK & DAM 5A	0600/0110/11.0

TRE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROD FS	PROJECT NAME IWR	DIVISION NAME NORTH CENTRAL			MONTHS REPORTED								
					7/84			8/84			9/84		
RIVER/LOCK NAME		TOWS RECRNT	VESSL OTHER	VESSL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGES COMMER	LOCKGES RECRNT	LOCKGES OTHER	LOCKGES TOTAL	TONNAGE (TONS) (NAV, DPN, ETC)	
<b>MISSISSIPPI RIVER</b>													
LOCK & DAM 1 - ALL THRU 1		***											
UPBOUND	101	250	1087	20	1967	237	254	471	294	706	10	1910	320
DOWNBOUND	147	361	1854	6	2122	229	266	495	289	740	11	1640	197
TOTALS		521	3541	26	4089	466	520	966	583	1446	21	2050	717
LOCK & DAM 1 - ALL THRU 2		NO DATA RECORDED FOR THIS LOCK											
LOCK & DAM 2		***											
UPBOUND STA 187103	145	2112	21	2478	2774	557	3331	443	788	16	1247	793	
DOWNBOUND STA 187103	343	2167	6	2516	46	3268	3316	441	783	20	1244	4626	
TOTALS		588	4279	27	4994	2822	3825	6647	984	1571	36	2491	5420
LOCK & DAM 2 - AUXILIARY 1		NO DATA RECORDED FOR THIS LOCK											
LOCK & DAM 2		***											
UPBOUND STA 187103	275	3897	17	3990	2430	560	2990	350	1110	37	1497	696	
DOWNBOUND STA 187103	144	3746	10	4024	40	2946	2986	348	1135	34	1517	4195	
TOTALS		550	7437	27	8014	2470	3506	5976	698	2245	71	3014	5008
LOCK & DAM 3		***											
UPBOUND STA 187103	276	2424	20	2720	2463	577	3040	355	952	89	1396	832	
DOWNBOUND STA 187103	275	2520	13	2808	42	2995	3037	346	995	82	1423	4278	
TOTALS		551	4944	33	5528	2505	3572	6077	701	1947	171	2819	5110
LOCK & DAM 4		***											
UPBOUND STA 187104	275	1904	12	2191	2371	625	2996	348	810	158	1316	597	
DOWNBOUND STA 187104	172	1961	6	2241	60	2955	3015	344	825	156	1325	411	
TOTALS		547	3865	18	4432	2431	3580	6011	692	1635	314	2641	5097
LOCK & DAM 5		***											
UPBOUND STA 187105	176	21	5	2459	2489	680	3169	360	969	37	1368	577	
DOWNBOUND STA 187105	177	1158	7	2438	66	3113	3129	347	1101	35	1482	4427	
TOTALS		353	4379	12	4907	1555	3793	6248	707	2070	72	2849	5245

Page 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #	CITY STATE NAME ST. #/PL	DIVISION NAME NORTH CENTRAL						MONTHS REPORTED 7/84 8/84 9/84						
		TOWS RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	VESSL NAV, OPN, ETC	VESSL NAV, OPN, ETC	
MISSISSIPPI RIVER														
LOCK & DAM 7														
UPBOUND STATISTICS		285	3396	18	3699	2468	682	3170	427	1114	71	1612	181	
DOWNBOUND STATISTICS		275	3433	112	3820	52	3112	3164	404	1181	79	1664	447	
TOTALS		560	6829	130	7519	2540	3794	6334	831	2295	150	3276	587	
LOCK & DAM 8														
UPBOUND STATISTICS		286	1422	11	1719	2425	803	3228	363	743	33	1139	171	
DOWNBOUND STATISTICS		273	1486	8	1767	70	3149	3219	352	757	37	1146	478	
TOTALS		559	2908	19	3486	2495	3952	6447	715	1500	70	2285	5649	
LOCK & DAM 9														
UPBOUND STATISTICS		271	1423	5	1699	2043	1186	3229	344	750	72	1166	119	
DOWNBOUND STATISTICS		262	1465	5	1732	97	3065	3162	333	759	77	1167	462	
TOTALS		533	2888	10	3431	2140	4251	6391	677	1509	149	2335	5062	
LOCK & DAM 10														
UPBOUND STATISTICS		303	1619	20	1942	2224	1239	3463	391	825	22	1259	171	
DOWNBOUND STATISTICS		288	1587	13	1888	199	3243	3343	370	903	27	1300	4593	
TOTALS		591	3206	33	3830	2324	4482	6806	761	1728	49	2538	5264	
ST. ANTHONY FALLS, UPPER L & D														
UPBOUND STATISTICS		182	816	124	1122	198	98	296	206	405	6	617	140	
DOWNBOUND STATISTICS		192	910	22	1124	82	226	308	210	417	8	635	329	
TOTALS		374	1726	146	2246	280	324	604	416	822	14	1252	469	
ST. ANTHONY FALLS, LOWER L & D														
UPBOUND STATISTICS		261	826	11	1098	239	252	491	273	396	10	673	229	
DOWNBOUND STATISTICS		266	948	7	1221	233	269	502	272	406	7	685	237	
TOTALS		527	1774	18	2319	472	521	993	545	802	17	1364	227	
LOCK & DAM 54														
UPBOUND STATISTICS		278	2627	39	2944	2383	628	3011	472	983	149	1610	112	
DOWNBOUND STATISTICS		274	2619	42	2935	51	2987	3038	446	1062	140	1650	464	
TOTALS		552	5246	81	5879	2434	3615	6049	920	2051	289	3269	517	

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
ES	ST. PAUL	NORTH CENTRAL	7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES									
APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY			DELAY	DELAY	
	ENTRY	CHAMBER	EXIT	: TONS	TIME	AVE	MAX		
MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : MIN AVG MAX :	(TONS)	(TONS)	ALL VERSIONS						

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1974-75 N 1665

4 5 1 6 35 4 9 23 1 7 72 447 47533 671 720

LOCK 5 - 100-1000148-1 NO DATA RECORDED FOR THIS LOCK

1 4 62 1 5 38 2 5 59 1 7 73 : 342 28241 51.3 603

4 49 1 5 63 4 8 38 1 7 170 : 317 23474 4215 563

LOCK & JEWELL 1 4 6 1 4 34 2 5 28 1 7 84 : 338 28269 51.2 644

12 1 100 19 4 60 56 1 6 90 1 359 22201 16.6 611

1 4 10 11 13 19 20 4 7 55 1 7 57 1 322 26404 8 1 528

1 4 118 1 0 46 3 6 26 1 9 78 ; 201 2746 011 1196

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TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

ERCC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
1	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	NORTH PACIFIC	7/84 8/84 9/84
<hr/>			
1-RIVER	CODE-LOCK NAME	LEN/WID/DEPTH (FT/FT/FT)	
COLUMBIA RIVER	1-BONNEVILLE LOCK & DAM	0500/0075/15.0	
	2-THE DALLES DAM	0675/0086/15.0	
	3-JOHN DAY LOCK & DAM	0675/0086/15.0	
WILLAMETTE RIVER	11-WILLAMETTE FALLS LOCKS 1 - 4	0210/0040/ 6.5	
	15-WILLAMETTE FALLS GUARD LOCK	0210/0040/ 6.5	

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

SHOE	DISTRICT NAME	DIVISION NAME						MONTHS REPORTED							
		NORTH PACIFIC						7/84	8/84	9/84	TONNAGE				
SHOE	DISTRICT NAME	TOWL	VESEL RECFTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECFTN	LOCKGS OTHER	LOCKGS TOTAL	(KTONS) (NAV, OPN, ETC)		
COLUMBIA RIVER															
JOHN DAY - 100' + DAM															
UPBOARDED	100' + 101-105	391	162	34	497	736	279	1015	627	55	47	729	519		
DOWNBOARDED	100' + 101-105	71	182	11	514	59	1942	1101	693	68	54	815	2294		
TOTALS		622	244	45	1011	795	1321	2116	1320	123	101	1544	2813		
THE DALLES - 40' + 40' + 40'															
UPBOARDED	40' + 40' + 40'	237	86	8	331	567	263	830	258	47	27	332	405		
DOWNBOARDED	40' + 40' + 40'	24	97	9	346	57	795	852	260	57	22	334	1987		
TOTALS		477	183	17	677	624	1058	1682	518	104	49	671	1392		
JOHN DAY - 100' + DAM															
UPBOARDED	100' + 101-105	237	103	9	349	547	271	818	256	42	32	359	470		
DOWNBOARDED	100' + 101-105	237	116	16	365	69	767	827	254	45	32	331	1915		
TOTALS		479	219	25	714	607	1038	1645	510	87	64	661	2386		
W. K. MERRITT RIVER															
WILLAMETTE - 100' + 100' + 40'															
UPBOARDED	100' + 101-105	132	279	45	456	14	183	217	211	24	1	459	44		
DOWNBOARDED	100' + 101-105	105	193	61	477	4	135	174	175	229	2	405	40		
TOTALS		24	582	106	933	18	318	356	386	475	3	864	85		
W. K. MERRITT - 100' + GUARD RIVER															
UPBOARDED	100' + 101-105	47	198	118	314	16	123	149	34	33	396	463	23		
DOWNBOARDED	100' + 101-105	72	129	141	342	4	68	72	16	30	363	409	23		
TOTALS		125	327	259	661	20	191	221	50	63	759	872	46		

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

REPORT NO.	PROJECT NAME CODE	DIVISION NAME	MONTHS REPORTED
		NORTH PACIFIC	7/84      6/84      14

ALL TIMES EXPRESSED IN MINUTES

APPROACH	LOCK PROCESSING TIME			: TOWS	TIME	AVG	MAX
	ENTRY	CHAMBER	EXIT				
MIN	AVG	MAX	MIN	AVG	MAX	MIN	MAX

## COLUMBIA RIVER

BONNEVILLE LOCK & DAM	1	7	65	1	6	65	1	23	110	1	4	67	:	609	60126	96.1	452
THE DALLAS BLDG	1	5	30	1	5	24	10	22	96	1	5	18	:	384	3796	8.	1
JOHN DAY LOCK & DAM	1	4	20	1	6	24	2	23	85	1	4	12	:	468	2520	3.4	110

## WILLAMETTE RIVER

WILLAMETTE FALLS LOCKS 1 - 4	1	1	61	1	1	8	2	33	117	1	1	24	:	234	281	1.4	18
WILLAMETTE FALLS GUARD LOCK	1	1	6	1	1	8	1	1	61	1	1	61	:	161	165	1.0	3

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EDOC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
57	SEATTLE	NORTH PACIFIC	7/84 8/84 9/84
FLVER	LEVEE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
LAKE WASHINGTON SHP 2A	1-HIRAM M CHITTENDEN LOCKS	0760/0080/30.0	
	1-HIRAM M CHITTENDEN LOCKS AUX1	0150/0028/25.0	

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

SHIPPING ROUTE NUMBER	PROJECT NAME	DIVISION NAME						MONTHS REPORTED						
		OHIO RIVER			7/84			8/84			9/84			
LOCK/STATION NAME		TOWS	VESSL RECRDN	VESSL OTHER	VESSL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGES COMMER	LOCKGES RECRDN	LOCKGES OTHER	LOCKGES TOTAL	IMAGE (NAV, BDN, ETC)	
<b>GREEN RIVER</b>														
<b>LOCK 1 - DAM 1</b>														
UPBOUND STATISTICS		566	314	21	841	1718	219	1937	525	165	3	693	528	
DOWNBOUND STATISTICS		569	321	14	844	110	1819	1929	523	159	2	684	5724	
TOTALS		1015	635	35	1685	1828	2038	3866	1048	324	5	1377	5751	
LOCK 2 - DAM 2		<b>***</b>												
UPBOUND STATISTICS		365	84	15	464	1380	33	1413	378	53	4	435	49	
DOWNBOUND STATISTICS		366	76	6	448	25	1389	1414	374	51	3	429	476	
TOTALS		731	160	21	912	1405	1422	2827	752	104	7	863	1119	
LOCK 3 - DAM		NO DATA RECORDED FOR THIS LOCK												
<b>OHIO RIVER</b>														
<b>MARYLAND LOCKS 3 &amp; 4 DM</b>		<b>***</b>												
UPBOUND STATISTICS		523	1025	17	1565	2311	2652	4963	532	331	11	874	528	
DOWNBOUND STATISTICS		507	1031	9	1547	932	3739	4671	514	352	17	883	5599	
TOTALS		1030	2056	26	3112	3243	6391	9634	1046	683	28	1757	5799	
<b>MARYLAND LOCKS 5 &amp; 6 DM AUX 1</b>		NO DATA RECORDED FOR THIS LOCK												
<b>MEALPINE LOCKS 7 &amp; 8 DM</b>														
UPBOUND STATISTICS		586	288	105	974	1819	3582	5401	663	114	17	794	5844	
DOWNBOUND STATISTICS		599	341	84	1015	1396	3719	5115	645	142	19	806	5851	
TOTALS		1176	629	184	1989	3215	7301	10516	1308	256	36	1600	5771	
<b>MEALPINE LOCKS 9 &amp; 10 DM AUX 1</b>		NO DATA RECORDED FOR THIS LOCK												
<b>CANNONBALL LOCKS 11 &amp; 12 DM</b>														
UPBOUND STATISTICS		546	38	6	590	2008	3734	5742	551	11	0	562	5857	
DOWNBOUND STATISTICS		521	33	11	565	1345	4064	5409	524	14	3	541	5773	
TOTALS		1067	71	17	1155	3353	7798	11151	1075	25	3	1103	5841	

## TABLE

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERCC	STATION NAME	DIVISION NAME	MONTHS REPORTED
82	DETROILLE	OHIO RIVER	7/84 8/84 9/84
<hr/>			
RIVERS	CODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
GREEN RIVER - OHIO RIVER	21-LOCK & DAM 1	0600/0084/12.0	
	22-LOCK & DAM 2	0600/0084/12.0	
	23-LOCK & DAM 3	0138/0036/12.0	
OHIO RIVER	41-MARKELAND LOCKS & DAM	1200/0110/12.0	
	41-MARKELAND LOCKS & DAM AUX 1	0600/0110/12.0	
	42-MCALPINE LOCKS & DAM	1200/0110/12.0	
	42-MCALPINE LOCKS & DAM AUX 1	0600/0110/12.0	
	75-CANNELTON LOCK & DAM	1200/0110/12.0	
	75-CANNELTON LOCK & DAM AUX	0600/0110/12.0	
	78-NEWBURGH LOCK & DAM	1200/0110/12.0	
	78-NEWBURGH LOCK & DAM AUX 1	0600/0110/12.0	
	77-UNIONTOWN LOCK & DAM	1200/0110/12.0	
	77-UNIONTOWN LOCK & DAM AUX 1	0600/0110/12.0	
	78-SMITHLAND LOCK & DAM	1200/0110/12.0	
	78-SMITHLAND LOCK & DAM AUX 1	1200/0110/12.0	
	52-LOCK & DAM 52	1200/0110/12.0	
	52-LOCK & DAM 52 AUX 1	0600/0110/12.0	
<hr/>			

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EEBC DISTRICT NAME DIVISION NAME MONTHS REPORTED  
H1 HUNTINGTON OHIO RIVER 7/84 6/84 3/84

OHIO RIVER

CAFT ANT MELDAM L&DAM AUX	1	4	38	1	2	26	6	12	28	1	2	25	:	3	80	1.2	50
WILLOW ISLAND LOCKS & DAM	1	15	48	1	8	28	5	13	50	2	9	30	:	325	14113	15.1	136
WILLOW ISLAND LOCKS & DAM AU	1	10	49	1	3	27	5	13	27	1	5	15	:	17	414	1.2	54

TABLE

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ELOC #	SUBDISTRICT NAME	DIVISION NAME	MONTHS REPORTED																									
			7/84			8/84			9/84			AVERAGE																
ALL TIMES EXPRESSED IN MINUTES																												
LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY																												
APPROACH ENTRY CHAMBER EXIT : TOWS TIME AVG MAX : (TOWS) (VSELS) (ALL VSELS)																												
MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : MIN AVG MAX :																												
OHIO RIVER																												
WINFIELD LOCK & DAM MAIN 1	1	9	98	1	5	45	5	10	32	4	13	490	:	413	101138	165.2	1310											
WINFIELD LOCK & DAM MAIN 2	1	8	105	1	4	19	5	9	42	3	11	103	:	422	97404	164.6	940											
MARMET LOCK & DAM MAIN 1	1	9	93	1	4	46	5	8	28	1	9	50	:	188	92688	207.8	2180											
MARMET LOCK & DAM MAIN 2	1	3	71	1	4	28	5	8	20	1	8	53	:	90	10633	29.2	640											
LONDON LOCK & DAM MAIN 1	1	7	57	1	4	19	5	9	24	2	8	65	:	80	9901	45.0	486											
LONDON LOCK & DAM MAIN 2	1	7	36	1	4	21	5	9	25	2	7	38	:	56	11156	56.3	801											
CUMBERLAND RIVER																												
BELLEVILLE LOCKS & DAM	1	17	50	1	9	30	8	12	25	3	9	33	:	296	14138	16.5	786											
BELLEVILLE LOCKS & DAM AUX 1	1	7	73	1	6	40	8	12	53	1	8	65	:	174	50102	174.0	1440											
RACINE LOCKS & DAM	1	13	75	2	11	36	9	10	27	2	9	29	:	370	17110	24.6	232											
RACINE LOCKS & DAM AUX 1	1	6	72	2	5	22	8	10	17	1	6	20	:	13	363	34.0	60											
GALLIPOLIS LOCKS & DAM	1	9	101	1	12	46	5	12	57	2	18	72	:	827	202859	201.3	1090											
SHAWNEE LOCKS & DAM AUX 1	1	5	43	1	5	45	5	12	37	1	7	58	:	18	3082	26.8	889											
GREENUP LOCKS & DAM	1	14	52	2	9	30	5	11	22	2	9	29	:	520	23140	15.2	240											
GREENUP LOCKS & DAM AUX 1	1	6	30	1	4	19	5	10	20	1	4	15	:	10	255	15.3	60											
SPRINGFIELD LOCKS & DAM 1	1	17	58	1	19	42	5	14	30	2	11	27	:	473	28273	25.7	190											

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

FEDC H1	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER						MONTHS REPORTED 7/84 8/84 9/84								
		TOMS		VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TIME-GE (NAV, OPN, ETC)		
OHIO RIVER																
CAPT ANT MELDAHL LOCKS & DAM ***																
UPBOUND STATISTICS	542	19	11	572	3479	2326	5805	583	11	6	564	3689				
DOWNBOUND STATISTICS	518	20	6	544	951	4636	5587	523	13	0	536	5036				
TOTALS	1060	39	17	1116	4430	6962	11392	1076	24	0	1100	10718				
CAPT ANT MELDAHL LY&DAM AUX 1 ***																
UPBOUND STATISTICS	31	1224	2	1257	31	53	84	38	470	1	509	78				
DOWNBOUND STATISTICS	37	1184	7	1228	59	43	102	47	479	3	529	59				
TOTALS	68	2408	9	2485	90	96	186	85	949	4	1038	128				
WILLOW ISLAND LOCKS & DAM ***																
UPBOUND STATISTICS	458	7	7	472	877	4096	4973	460	5	0	465	5710				
DOWNBOUND STATISTICS	440	14	4	458	2325	2531	4856	443	9	0	452	3664				
TOTALS	898	21	11	930	3202	6627	9829	903	14	0	917	9374				
WILLOW ISLAND LOCKS & DAM AUX ***																
UPBOUND STATISTICS	84	329	20	433	138	143	281	116	161	1	278	151				
DOWNBOUND STATISTICS	105	340	18	463	194	167	361	137	160	2	299	143				
TOTALS	189	669	38	896	332	310	642	253	321	3	577	294				

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

RIVER	STRICT NAME	DIVISION NAME				MONTHS REPORTED							
		OHIO RIVER				7/84		8/84		9/84			
RIVER	STRICT	TIME	VESSEL	VESSEL	VESSEL	EMPTY	FULL	BARGES	LOCKGS	LOCKGES	LOCKGES	TONNAGE	
OHIO RIVER													
BELLEVILLE LOCKS & DAM AUX 1	***												
UPBOUND STATISTICS		134	135	4	773	215	952	1167	173	162	24	75	1307
DOWNBOUND STATISTICS		134	145	16	415	671	566	1237	205	165	23	28	792
TOTALS		268	280	20	788	886	1518	2404	378	327	47	103	2099
RACINE LOCKS & DAM	***												
UPBOUND STATISTICS		575	7	7	545	1255	4610	5865	540	2	6	141	6650
DOWNBOUND STATISTICS		499	8	11	512	2642	2948	5590	500	2	2	564	4226
TOTALS		1074	15	18	1057	3897	7558	11455	1040	4	2	145	10876
RACINE LOCKS & DAM AUX 1	***												
UPBOUND STATISTICS		50	161	0	217	99	70	169	57	101	7	161	109
DOWNBOUND STATISTICS		70	165	11	246	128	121	249	87	107	3	19	114
TOTALS		120	326	17	463	227	191	418	144	268	6	150	223
GALLIPOLIS LOCKS & DAM	***												
UPBOUND STATISTICS		512	7	9	524	890	4418	5308	878	1	0	879	6600
DOWNBOUND STATISTICS		486	49	104	689	2630	2469	5099	837	0	1	838	5573
TOTALS		998	102	113	1213	3520	6887	10407	1715	1	1	1717	10173
GALLIPOLIS LOCKS & DAM AUX 1	***												
UPBOUND STATISTICS		55	131	27	213	64	116	180	90	102	3	195	163
DOWNBOUND STATISTICS		60	131	42	233	134	76	210	120	101	3	224	178
TOTALS		115	262	69	446	198	192	390	210	203	6	419	242
GREENSBURG LOCKS & DAM	***												
UPBOUND STATISTICS		612	39	23	665	4092	1945	6037	624	8	2	114	3039
DOWNBOUND STATISTICS		597	17	21	631	860	5070	5930	606	4	0	617	7655
TOTALS		1209	57	44	1296	4952	7015	11967	1230	12	2	1244	10684
PIERRE CORPS DAM AUX 1	***												
UPBOUND STATISTICS		60	424	53	597	56	69	125	112	264	2	178	45
DOWNBOUND STATISTICS		50	479	79	611	68	38	106	128	237	3	160	49
TOTALS		110	903	132	1208	124	107	231	240	501	5	338	145

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EPCID	DISTRICT NAME	DIVISION NAME						MONTHS REPORTED					
		OHIO RIVER						7/84		8/84			
RIVER DIVISION NAME		TOWS	VESSEL RECRNT	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGES COMMER	LOCKGES RECRNT	LOCKGES OTHER	LOCKGES TOTAL	TIME (NAV, DPN, ETC)
<b>ANATOLIA RIVER</b>													
WINFIELD LOCKS & DAM MAIN 1	***												
UPBOUND STATISTICS	270	63	20	353	1049	617	1666	1052	70	11	1133	155	
DOWNBOUND STATISTICS	276	41	10	327	330	1462	1792	1057	56	11	1124	144	
TOTALS	546	104	30	680	1379	2079	3458	2109	126	22	2257	1594	
WINFIELD LOCKS & DAM MAIN 2	***												
UPBOUND STATISTICS	296	68	22	386	1382	430	1812	1051	101	13	1165	576	
DOWNBOUND STATISTICS	295	90	20	405	514	1197	1711	1053	111	6	1170	541	
TOTALS	591	158	42	791	1896	1627	3523	2104	212	19	2335	1970	
MARMET LOCKS & DAM MAIN 1	***												
UPBOUND STATISTICS	292	87	15	304	955	100	1055	663	154	0	817	115	
DOWNBOUND STATISTICS	244	106	15	365	72	1172	1244	829	168	3	1000	145	
TOTALS	446	193	30	669	1027	1272	2299	1492	322	3	1817	1569	
MARMET LOCKS & DAM MAIN 2	***												
UPBOUND STATISTICS	194	193	23	410	760	75	835	501	225	0	726	99	
DOWNBOUND STATISTICS	150	173	21	344	74	621	695	367	224	2	593	712	
TOTALS	344	366	44	754	834	696	1530	868	449	2	1319	811	
LONDON LOCKS & DAM MAIN 1	***												
UPBOUND STATISTICS	111	17	12	140	346	5	351	247	31	9	287	5	
DOWNBOUND STATISTICS	109	22	9	140	5	373	378	262	46	11	319	447	
TOTALS	220	39	21	280	351	378	729	509	77	20	606	453	
LONDON LOCKS & DAM MAIN 2	***												
UPBOUND STATISTICS	109	46	8	163	397	1	398	265	53	5	324	1	
DOWNBOUND STATISTICS	113	21	10	144	1	389	390	270	42	2	314	41	
TOTALS	222	67	18	307	398	390	788	535	95	8	638	42	
<b>OHIO RIVER</b>													
BELLEVILLE LOCKS & DAM	***												
UPBOUND STATISTICS	401	2	3	406	677	3728	4405	403	6	1	404	545	
DOWNBOUND STATISTICS	364	1	5	370	2148	2089	4237	365	6	0	365	313	
TOTALS	765	3	8	776	2825	5817	8642	768	0	1	769	316	

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROD	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
RI	ATINGTON	OHIO RIVER	7/84 8/84 9/84
<hr/>			
RIVER	LOCK-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
ANAHUAC	1-WINFIELD LOCKS & DAM MAIN 1	0360/0056/12.0	
	1-WINFIELD LOCKS & DAM MAIN 2	0360/0056/12.0	
	2-MARMET LOCKS & DAM MAIN 1	0360/0056/12.0	
	2-MARMET LOCKS & DAM MAIN 2	0360/0056/12.0	
	3-LONDON LOCKS & DAM MAIN 1	0360/0056/12.0	
	3-LONDON LOCKS & DAM MAIN 2	0360/0056/12.0	
OHIO R.	21-BELLEVILLE LOCKS & DAM	1200/0110/12.0	
	21-BELLEVILLE LOCKS & DAM AUX 1	0600/0110/12.0	
	22-RACINE LOCKS & DAM	1200/0110/12.0	
	22-FACINE LOCKS & DAM AUX 1	0600/0110/12.0	
	23-GALLIPOLIS LOCKS & DAM	0600/0110/12.0	
	23-GALLIPOLIS LOCKS & DAM AUX 1	0360/0110/12.0	
	24-GREENUP LOCKS & DAM	1200/0110/12.0	
	24-GREENUP LOCKS & DAM AUX 1	0600/0110/12.0	
	25-CAPT ANT MELDAHL LOCKS & DAM	1200/0110/12.0	
	25-CAPT ANT MELDAHL LK&DAM AUX 1	0600/0110/12.0	
	72-WILLOW ISLAND LOCKS & DAM	1200/0110/12.0	
	72-WILLOW ISLAND LOCKS & DAM AUX	0600/0110/12.0	

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

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61941CT NAME  
WILLIE WALLA

DIVISION NAME  
NORTH PACIFIC

MONTHS REPORTED  
8/84

ALL TIMES EXPRESSED IN MINUTES												
APPROACH	LOCK PROCESSING TIME			: DELAYED DELAY			DELAY			DELAY		
	ENTRY	CHAMBER	EXIT	: TOWS	TIME	AVE	MIN	MAX	(TOWS)	(TOWS)	SECS)	
MIN	AVG	MAX	: MIN	AVG	MAX	: MIN	AVG	MAX	: MIN	AVG	MAX	

COLUMBIA RIVER

MENARY LOCK & DAM 1 4 25 1 5 25 5 16 44 2 5 22 : 441 3301 .5 .5

SNAKE RIVER

ICE HARBOR LOCK & DAM	1	3	15	1	5	34	10	21	46	1	3	17	:	393	2784	7.1	140
LOWER MONUMENTAL LOCK & DAM	1	3	25	2	5	30	9	24	44	1	4	24	:	252	1857	7.4	95
LITTLE GOOSE LOCK & DAM	2	3	18	1	3	26	9	15	34	1	4	18	:	250	1191	4.8	15
LOWER GRANITE LOCK & DAM	1	3	28	2	4	15	6	11	21	1	3	14	:	225	1191	4.8	76

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

E504 64	DISTRICT NAME WHEELA WALLA	DIVISION NAME NORTH PACIFIC			MONTHS REPORTED 7/84 8/84 9/84								
		TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (NAV, DPN, ETC)
<b>COLUMBIA RIVER</b>													
MINARY, LADDER & DAM	***												
UPBOUND STATISTICS	222	161	5	388	467	274	741	246	82	3	311	416	
DOWNBOUND STATISTICS	219	151	7	387	83	669	752	248	89	5	342	1659	
TOTALS	441	322	12	775	550	943	1493	494	171	8	653	2060	
<b>DAKE RIVER</b>													
ICE HARBOR LOCK & DAM	***												
UPBOUND STATISTICS	196	636	23	855	396	58	454	234	263	1	498	37	
DOWNBOUND STATISTICS	197	651	21	869	5	460	465	236	259	3	498	1121	
TOTALS	393	1287	44	1724	401	518	919	470	522	4	996	1158	
<b>LOWER MONUMENTAL LOCK &amp; DAM</b>													
UPBOUND STATISTICS	127	163	2	292	331	57	388	143	80	2	225	58	
DOWNBOUND STATISTICS	125	173	3	301	4	387	391	143	87	3	233	900	
TOTALS	252	336	5	593	335	444	779	286	167	5	458	939	
<b>LITTLE LEWIS &amp; CLARK RIVER</b>													
UPBOUND STATISTICS	125	148	1	274	317	56	373	141	75	5	221	36	
DOWNBOUND STATISTICS	125	168	2	295	6	369	375	143	85	6	274	335	
TOTALS	250	316	3	569	323	425	748	284	160	11	495	871	
<b>LOWER GRANITE LOCK &amp; DAM</b>													
UPBOUND STATISTICS	114	249	1	364	229	53	282	129	162	4	295	34	
DOWNBOUND STATISTICS	112	264	2	378	12	271	283	130	175	3	308	575	
TOTALS	226	513	3	742	241	324	565	259	337	7	603	609	

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

ER00 64	DISTRICT NAME WALLA WALLA	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED 7/84	8/84
RIVER	LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)	
COLUMBIA RIVER	24-MCNARY LOCK & DAM		0675/0086/14.0	
SNAKE RIVER	1-ICE HARBOR LOCK & DAM		0675/0086/14.0	
	2-LOWER MONUMENTAL LOCK & DAM		0675/0086/14.0	
	3-LITTLE GOOSE LOCK & DAM		0675/0086/14.0	
	4-LOWER GRANITE LOCK & DAM		0675/0086/14.0	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EAOE 63	DISTRICT NAME SEATTLE	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED																
			7/84			8/84			9/84										
ALL TIMES EXPRESSED IN MINUTES																			
			APPROACH	ENTRY	CHAMBER	EXIT	:	TOWS	TIME	AVG	DELAY	DELAY	DELAY	DELAY					
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	ALL VSSLS					
* * * * * WASHINGTON SHF CA																			
HIRAM M CHITTENDEN LOCKS			1	2	20	1	4	55	2	13	68	1	7	71	:	548	2970	4.7	47
HIRAM M CHITTENDEN LOCKS AUX			1	1	16	1	1	34	1	4	34	1	7	51	:	3	18	.3	55

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

FEDC 63	DISTRICT NAME SEATTLE	DIVISION NAME NORTH PACIFIC						MONTHS REPORTED 7/84 8/84 9/84					
		TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	LOCKGS (NAV, OPN, ETC)

## LAKE WASHINGTON SHP CA

HIRAM M CHITTENDEN LOCKS ***												
UPBOUND STATISTICS	324	6295	583	7202	100	275	375	698	96	63	857	471
DOWNBOUND STATISTICS	311	5442	682	6435	246	314	560	622	116	51	789	225
TOTALS	635	11737	1265	13637	346	589	935	1320	212	114	1646	597
HIRAM M CHITTENDEN LOCKS AUX1 ***												
UPBOUND STATISTICS	32	8599	508	9139	19	13	32	1043	1518	98	2659	0
DOWNBOUND STATISTICS	33	8814	442	9289	15	18	33	818	1725	114	2657	0
TOTALS	65	17413	950	18428	34	31	65	1861	3243	212	5316	0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #2	DISTRICT NAME CAMDEN/CLARKSVILLE	DIVISION NAME OHIO RIVER						MONTHS REPORTED 7/84 8/84 9/84								
		TOWS		VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL			
RIVER/LOCK NAME																
(NAV. BPN, ETC)																
OHIO RIVER																
LOCK & DAM 52		***														
UPBOUND STATISTICS	706	8	74	788	4000	3741	7741	387	2	343	732	5865				
DOWNBOUND STATISTICS	756	6	65	827	1849	6081	7930	436	4	362	802	9858				
TOTALS	1462	14	139	1615	5849	9822	15671	823	6	705	1534	14723				
LOCK & DAM 52 AUX 1		***														
UPBOUND STATISTICS	348	25	72	445	1095	1032	2127	476	20	3	499	1211				
DOWNBOUND STATISTICS	335	37	67	439	602	1487	2089	466	27	4	497	1197				
TOTALS	683	62	139	884	1697	2519	4216	942	47	7	996	4418				

## TABLE

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERIC #	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED														
			7/84				8/84				9/84						
ALL TIMES EXPRESSED IN MINUTES																	
APPROACH			LOCK PROCESSING TIME				: DELAYED TOWS				DELAY TIME AVG						
MIN			ENTRY	: MIN		CHAMBER	: MIN		EXIT	: MIN		TIME	AVG	MAX			
			MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	(ALL VESSELS)		
GREEN-BARREN RIVER																	
LOCK 3 DAM			1	5	25	1	3	20	5	7	23	1	4	36	:		
LOCK 3 DAM			1	4	69	1	3	15	5	13	43	1	4	27	:		
LOCK 4 DAM			NO DATA RECORDED FOR THIS LOCK														
OHIO RIVER																	
MARKLAND LOCK & DAM			1	13	69	1	6	30	5	13	42	1	6	29	:		
MARKLAND LOCK & DAM AUX 1			NO DATA RECORDED FOR THIS LOCK														
MCALPIN LOCK & DAM			1	15	60	1	8	48	5	12	40	1	6	32	:		
MCALPIN LOCK & DAM AUX 1			NO DATA RECORDED FOR THIS LOCK														
CANDELTON LOCK & DAM			1	24	60	1	7	30	5	11	20	1	8	35	:		
CANDELTON LOCK & DAM AUX 1			1	9	55	1	2	20	5	10	18	1	3	20	:		
NEWBURGH LOCK & DAM			1	10	60	1	7	29	6	8	24	1	8	25	:		
NEWBURGH LOCK & DAM AUX 1			1	5	30	1	3	15	6	8	18	1	3	17	:		
UNIONTOWN LOCK & DAM			1	18	60	1	8	30	5	10	30	1	8	55	:		
UNIONTOWN LOCK & DAM AUX 1			1	3	46	1	1	20	5	9	22	1	1	15	:		
SMITHLAND LOCK & DAM			1	15	60	1	8	30	5	10	33	1	8	35	:		
SMITHLAND LOCK & DAM AUX 1			1	12	60	1	8	25	5	10	20	1	7	30	:		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ENR	DIVISION NAME	DIVISION NAME	MONTHS REPORTED					
HC	EVANSVILLE	OHIO RIVER	7/84	8/84	9/84			
ALL TIMES EXPRESSED IN MINUTES								
APPROACH	ENTRY	CHAMBER	EXIT	DELAYED	DELAY	DELAY	DELAY	
				TOWS	TIME	AVG	PERCENT	
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX
						(TOWS)	(TOWS)	(TOWS)

OHIO RIVER

LOCK & DAM	1	7	60	1	9	30	1	11	57	1	10	58	752	366549	250.7	1080
LOCK & DAM 52 ALB 1	1	9	110	1	10	73	5	12	50	1	11	82	500	332379	486.0	2480

## TABLE

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
HS	NASHVILLE	OHIO RIVER	7/84	8/84	9/84
<hr/>					
RIVER	LOCK/LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)		
CLINCH RIVER	11-MELTON HILL LOCK		0400/0075/11.0		
COOKEVILLE RIVER	21-PENNLEY LOCK		0800/0110/11.0		
	22-CHEATHAM LOCK		0800/0110/11.0		
	23-FORBELL ROLL LOCK		0400/0084/11.0		
	24-OLD HICKORY LOCK		0400/0084/11.0		
TENNESSEE RIVER	1-KENTUCKY LOCK		0600/0110/11.0		
	2-PICKWICK LANDING LOCK		1000/0110/11.0		
	3-PICKWICK LANDING LOCK AUX		0600/0110/11.0		
	3-WILSON LOCK		0600/0110/11.0		
	3-WILSON LOCK AUX		0292/0060/11.0		
	4-GEN JOS WHEELER LOCK		0600/0110/11.0		
	4-GEN JOS WHEELER LF AUX1		0400/0060/11.0		
	5-GUNTERSVILLE LOCK		0600/0110/11.0		
	5-GUNTERSVILLE LOCK AUX 1		0360/0060/11.0		
	6-NICKAJAC LOCK		0600/0119/11.0		
	7-CHICKAMAUGA LOCK		0360/0060/11.0		
	8-WATTS BAR LOCK		0360/0060/11.0		
	9-FORT LOUDON LOCK		0360/0060/11.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

ERDC HQ	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER						MONTHS REPORTED				
					7/84		8/84					
RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (NAV, DPN, ETC)
CLINCH RIVER												
MELTON HILL LOCK	***											
UPBOUND STATISTICS	0	44	0	44	0	0	0	1	33	7	41	0
DOWNBOUND STATISTICS	0	45	0	45	0	0	0	2	35	6	43	0
TOTALS	0	89	0	89	0	0	0	3	68	13	84	0
CUMBERLAND RIVER												
BARKLEY LOCK	***											
UPBOUND STATISTICS	57	288	2	347	28	342	370	60	155	9	224	509
DOWNBOUND STATISTICS	112	320	1	433	925	53	978	129	200	8	337	76
TOTALS	169	608	3	780	953	395	1348	189	355	17	561	586
CHEATHAM LOCK	***											
UPBOUND STATISTICS	105	220	3	328	20	554	574	109	148	27	284	861
DOWNBOUND STATISTICS	107	198	2	307	549	53	602	112	127	18	257	76
TOTALS	212	418	5	635	569	607	1176	221	275	45	541	937
CORDELL HULL LOCK	***											
UPBOUND STATISTICS	2	27	0	29	4	0	4	2	24	3	29	1
DOWNBOUND STATISTICS	3	33	0	36	0	6	6	5	24	1	30	9
TOTALS	5	60	0	65	4	6	10	7	48	4	59	10
OLD HICKORY LOCK	***											
UPBOUND STATISTICS	25	485	12	522	2	38	40	38	311	6	365	51
DOWNBOUND STATISTICS	26	490	8	524	45	4	49	35	326	8	369	2
TOTALS	51	975	20	1046	47	42	89	73	647	14	734	55
TENNESSEE RIVER												
KENTUCKY LOCK	***											
UPBOUND STATISTICS	472	120	41	633	799	3764	4563	744	112	10	865	5633
DOWNBOUND STATISTICS	405	65	47	517	2861	1073	3934	651	67	7	725	5520
TOTALS	877	185	88	1150	3660	4837	8497	1395	179	17	1591	5153

TABLE A

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

FREIGHT RT	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER						MONTHS REPORTED							
		7/84			8/84			9/84							
RIVER	LOCK	NAME	TOWS	VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES	LOCKGS TOTAL	LOCKGS COMMER	LOCKGS RECRN	LOCKGS OTHER	TONNAGE TONS)	(NAV, DPN, ETC)
TENNESSEE RIVER															
FIDGWICK LANDING LOCK															
		***													
		UPBOUND STATISTICS	208	85	9	302	129	2089	2218	269	67	5	341	3078	
		DOWNBOUND STATISTICS	208	75	8	311	1505	373	2278	274	75	3	351	548	
		TOTALS	416	160	17	613	2034	2462	4496	543	142	8	693	3626	
		FIDGWICK LANDING LOCK RUR		***											
		UPBOUND STATISTICS	47	61	5	133	42	425	467	64	62	16	142	617	
		DOWNBOUND STATISTICS	41	88	3	132	366	36	402	54	64	18	126	56	
		TOTALS	88	149	8	265	408	461	869	118	126	34	178	673	
		WILSON LOCK		***											
		UPBOUND STATISTICS	147	283	63	493	204	1052	1256	224	212	8	444	1555	
		DOWNBOUND STATISTICS	152	298	51	501	904	383	1287	224	233	9	466	527	
		TOTALS	299	581	114	994	1108	1435	2543	448	445	17	910	2082	
		WILSON LOCK RUR		NO DATA RECORDED FOR THIS LOCK											
		GEN JOE WHEELER LOCK		***											
		UPBOUND STATISTICS	132	142	3	277	187	1005	1192	182	125	5	312	1475	
		DOWNBOUND STATISTICS	124	149	5	278	857	335	1192	172	138	4	314	472	
		TOTALS	256	291	8	555	1044	1340	2384	354	263	9	626	1948	
		GEN JOE WHEELER LK		RUR		***									
		UPBOUND STATISTICS	0	227	0	227	0	0	0	0	146	0	146	0	
		DOWNBOUND STATISTICS	0	215	0	216	0	0	0	2	149	0	151	0	
		TOTALS	0	442	0	443	0	0	0	2	295	0	297	0	
		GUNTERVILLE LOCK		***											
		UPBOUND STATISTICS	115	694	5	724	243	674	917	156	163	4	323	982	
		DOWNBOUND STATISTICS	114	639	8	761	574	368	942	156	190	4	350	490	
		TOTALS	229	1243	13	1485	817	1042	1859	312	353	8	673	1472	
		GUNTERVILLE LOCK		ADT 1		***									
		UPBOUND STATISTICS	22	416	3	441	34	98	132	40	350	9	399	149	
		DOWNBOUND STATISTICS	19	410	3	431	92	48	140	32	345	7	384	58	
		TOTALS	41	826	5	872	126	146	272	72	695	16	783	208	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERIC #	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER						MONTHS REPORTED 7/84 8/84 9/84						
		TOWS	VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMERCIAL	LOCKGS RECRN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (NAV, DPN, ETC)	
TENNESSEE RIVER														
NICKAJAC LOCK		***												
UPBOUND STATISTICS		165	185	9	359	381	795	1176	205	132	4	341	1684	
DOWNBOUND STATISTICS		161	212	14	387	678	461	1139	199	148	4	351	625	
TOTALS		326	397	23	746	1059	1256	2315	404	280	8	692	1710	
CHICKAMAUGA LOCK		***												
UPBOUND STATISTICS		74	384	4	462	51	291	342	141	451	30	622	422	
DOWNBOUND STATISTICS		62	411	15	488	206	110	316	130	450	28	608	156	
TOTALS		136	795	19	950	257	401	658	271	901	58	1230	578	
WATTS BAR LOCK		***												
UPBOUND STATISTICS		52	560	2	614	66	120	186	73	463	9	545	205	
DOWNBOUND STATISTICS		54	545	2	601	69	119	188	76	448	9	533	162	
TOTALS		106	1105	4	1215	135	239	374	149	911	18	1078	367	
FORT LOUDON LOCK		***												
UPBOUND STATISTICS		37	240	3	280	31	63	94	54	209	13	276	127	
DOWNBOUND STATISTICS		36	230	2	268	51	42	93	51	202	13	266	61	
TOTALS		73	470	5	548	82	105	187	105	411	26	542	189	

TABLE

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED																
			7/84				8/84				9/84								
ALL TIMES EXPRESSED IN MINUTES																			
			LOCK	PROCESSING	TIME	:	DELAYED	DELAY	DELAY	DELAY	(TOWS)	(TOWS)	Avg	Max					
			APPROACH	ENTRY	CHAMBER	EXIT	: TOWS	TIME	TIME	TIME	(TOWS)	(TOWS)	(ALL VSSLS)						
			MIN	AVG	MAX	: MIN	AVG	MAX	: MIN	AVG	MAX								
OHIO RIVER																			
MELTON FED. LOCK			1	5	22	1	1	4	8	14	25	1	2	6	:	0	0	0	723
CHEROKEE AND RIVER																			
BARKLEY LOCK			1	11	92	1	6	28	6	15	134	1	6	30	:	32	1347	3.0	110
CHEATRUM LOCK			1	6	40	1	7	45	6	15	48	1	5	37	:	31	769	3.6	135
CORDELL HORN LOCK			2	7	40	1	4	10	13	20	32	1	4	20	:	0	0	0	0
OLD HICKORY LOCK			1	3	20	1	3	33	6	15	76	1	3	123	:	7	126	2.5	540
TENNESSEE RIVER																			
KENTUCKY LOCK			1	3	406	1	13	73	6	19	77	1	17	77	:	731	178365	203.4	959
PICKWICK HANDING LOCK			1	11	103	2	14	50	10	22	119	1	18	82	:	212	26523	60.8	571
PICKWICK HANDING LOCK AUX			1	9	159	2	9	48	7	16	29	1	12	47	:	45	5597	53.6	369
WILSON LOCK			1	8	70	2	10	46	6	21	39	1	10	50	:	119	8448	26.3	270
WILSON TIE RIVER			NO DATA RECORDED FOR THIS LOCK																
GEN LOG CHIEF LOCK			1	11	121	2	11	39	6	14	35	1	14	63	:	75	4354	17.0	191
GEN LOG CHIEF LOCK	AUX		1	7	53	1	4	33	6	13	22	1	4	15	:	0	0	0	132
GUNTERSON LOCK			1	7	65	1	8	62	6	14	28	1	10	47	:	73	10939	47.8	1820
GUNTERSON LOCK	AUX		1	4	136	1	3	72	6	12	27	1	5	219	:	28	20263	494.2	1911
NIAGARA RIVER			1	9	87	2	10	47	6	14	26	1	11	75	:	91	6141	16.8	282

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC H3	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED															
			7/84			8/84			9/84									
ALL TIMES EXPRESSED IN MINUTES																		
			LOCK	PROCESSING	TIME	ENTRY	CHAMBER	EXIT	:	TOWS	TIME	AVG	DELAY	DELAY				
APPROACH			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	(ALL VSSLS)				
CHICKAMAUGA LOCK			1	3	109	1	4	36	9	12	34	1	5	81 :	53	12472	91.7	995
WATTS BAR LOC			1	4	70	1	3	29	10	15	75	1	4	84 :	40	2793	26.3	378
FORT LOUDON LOC			1	10	116	1	3	22	9	21	49	1	5	76 :	21	1714	23.5	290

## TENNESSEE RIVER

CHICKAMAUGA LOCK	1	3	109	1	4	36	9	12	34	1	5	81 :	53	12472	91.7	995
WATTS BAR LOC	1	4	70	1	3	29	10	15	75	1	4	84 :	40	2793	26.3	378
FORT LOUDON LOC	1	10	116	1	3	22	9	21	49	1	5	76 :	21	1714	23.5	290

TABLE A

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC A4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED 7/84	MONTHS REPORTED 8/84	MONTHS REPORTED 9/84
<hr/>					
ALLEGHENY RIVER	LOCK-LOCK NAME 42-LOCK & DAM 2 43-LOCK & DAM 3 44-LOCK & DAM 4 45-LOCK & DAM 5 46-LOCK & DAM 6 47-LOCK & DAM 7 48-LOCK & DAM 8 49-LOCK & DAM 9		LEN/MID/DRAFT (FT/FT/FT) 0360/0056/13.0 0360/0056/13.0 0360/0056/13.0 0360/0056/13.0 0360/0056/13.0 0360/0056/13.0 0360/0056/13.0 0360/0056/13.0		
MONONGAHELA RIVER	22-LOCK & DAM 2 22-LOCK & DAM 2 AUX 1 23-LOCK & DAM 3 23-LOCK & DAM 3 AUXILIARY 1 24-LOCK & DAM 4 24-LOCK & DAM 4 AUXILIARY 1 25-MAXWELL LOCK & DAM 25-MAXWELL LOCK & DAM AUX 1 27-LOCK & DAM 7 28-LOCK & DAM 8 29-MORGANTOWN LOCK & DAM 30-HILDEBRAND LOCK & DAM 31-OPEKISKA LOCK & DAM		0720/0110/13.0 0360/0056/13.0 0720/0056/13.0 0360/0056/13.0 0720/0056/13.0 0360/0056/13.0 0720/0084/13.0 0720/0084/13.0 0360/0056/13.0 0360/0056/13.0 0600/0084/13.0 0600/0084/13.0 0600/0084/13.0		
OHIO RIVER	1-EMSWORTH LOCK & DAM 1-EMSWORTH LOCK & DAM AUX 1 2-DASHIELDS LOCK & DAM 2-DASHIELDS LOCK & DAM AUX 1 3-MONTGOMERY LOCK & DAM 3-MONTGOMERY LOCK & DAM AUX 1 4-NEW CUMBERLAND LOCK & DAM 4-NEW CUMBERLAND LK & DAM AUX 1 5-PIKE ISLAND LOCK & DAM 5-PIKE ISLAND LOCK & DAM AUX 1 71-HANNIBAL LOCKS & DAM 71-HANNIBAL LOCKS & DAM AUX 1		0600/0110/13.0 0360/0056/13.0 0600/0110/13.0 0360/0056/13.0 0600/0110/13.0 0360/0056/13.0 1200/0110/13.0 0600/0110/13.0 1200/0110/13.0 0600/0110/13.0 1200/0110/13.0 0600/0110/13.0		

TABLE 2

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC H4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER			MONTHS REPORTED								
					7/84			8/84			9/84		
RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL DTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (NAV, OPN, ETC)	
<b>ALLEGHENY RIVER</b>													
LOCK & DAM 2	***												
UPBOUND STATISTICS	253	2165	24	2442	504	300	804	312	925	5	1242	351	
DOWNBOUND STATISTICS	245	2221	32	2498	297	501	798	314	957	5	1276	359	
TOTALS	498	4386	56	4940	801	801	1602	626	1882	10	2518	610	
LOCK & DAM 3	***												
UPBOUND STATISTICS	258	1083	23	1364	509	309	818	320	591	3	914	360	
DOWNBOUND STATISTICS	250	1106	25	1381	313	503	816	319	566	3	888	257	
TOTALS	508	2189	48	2745	822	812	1634	639	1157	6	1802	617	
LOCK & DAM 4	***												
UPBOUND STATISTICS	223	1139	22	1384	778	83	861	273	545	4	822	111	
DOWNBOUND STATISTICS	218	1228	28	1474	72	792	864	274	524	4	802	389	
TOTALS	441	2367	50	2858	850	875	1725	547	1069	8	1624	500	
LOCK & DAM 5	***												
UPBOUND STATISTICS	164	735	1	900	745	5	750	177	451	3	631	1	
DOWNBOUND STATISTICS	161	752	1	914	10	734	744	178	443	3	624	313	
TOTALS	325	1487	2	1814	755	739	1494	355	894	6	1255	314	
LOCK & DAM 6	***												
UPBOUND STATISTICS	158	432	2	592	670	4	674	173	315	3	491	0	
DOWNBOUND STATISTICS	158	475	1	634	5	671	676	174	317	3	494	285	
TOTALS	316	907	3	1226	675	675	1350	347	632	6	985	285	
LOCK & DAM 7	***												
UPBOUND STATISTICS	41	392	4	437	96	0	96	46	226	1	273	0	
DOWNBOUND STATISTICS	43	452	99	594	0	94	94	46	212	1	259	40	
TOTALS	84	844	103	1031	96	94	190	92	438	2	532	40	
LOCK & DAM 8	***												
UPBOUND STATISTICS	123	376	9	508	123	0	123	132	193	1	326	0	
DOWNBOUND STATISTICS	123	423	9	555	2	121	123	133	202	2	337	239	
TOTALS	246	799	18	1063	125	121	246	265	395	3	663	239	

TABLE A

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EPOL #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER						MONTHS REPORTED						
		7/84			8/84			9/84						
FLYER	MAN	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS	BARGS EMPTY	BARGS FULL	BARGES	LOCKGS COMMERC	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (NAV, QPN, ETC)
MUSKETINGUE RIVER														
UPBOUNDED STATISTICS		***												
UPBOUNDED STATISTICS		0	701	0	701	6	0	6	0	3	153	0	153	0
DOWNBOUNDED STATISTICS		0	275	0	275	0	0	0	0	4	157	0	141	0
TOTALS		0	976	0	976	9	6	3	9	7	310	0	177	0
NEW ORLEANS RIVER														
UPBOUNDED STATISTICS		***												
UPBOUNDED STATISTICS		556	0	2	558	2196	1453	3759	614	0	2	616	1823	
DOWNBOUNDED STATISTICS		577	2	3	582	960	2850	3810	640	0	3	643	3017	
TOTALS		1133	2	5	1140	3256	4303	7569	1254	0	5	1259	4840	
LOCK & TUMBLER														
UPBOUNDED STATISTICS		***												
UPBOUNDED STATISTICS		132	509	63	754	114	163	277	249	295	8	552	112	
DOWNBOUNDED STATISTICS		148	514	69	731	175	61	236	217	308	8	553	65	
TOTALS		330	1023	132	1485	289	224	513	466	603	16	1085	178	
LOCK & TUMBLER														
UPBOUNDED STATISTICS		***												
UPBOUNDED STATISTICS		947	1	5	954	4173	551	4724	947	1	2	957	657	
DOWNBOUNDED STATISTICS		982	0	4	992	309	4539	4848	988	0	2	997	4577	
TOTALS		1929	1	10	1946	4482	5090	9572	1935	1	4	1949	5235	
LOCK & TUMBLER														
UPBOUNDED STATISTICS		***												
UPBOUNDED STATISTICS		150	432	178	760	141	88	229	324	235	4	563	97	
DOWNBOUNDED STATISTICS		113	452	171	736	80	91	171	279	250	5	534	94	
TOTALS		263	884	349	1496	221	179	400	603	485	9	1097	192	
LOCK & TUMBLER														
UPBOUNDED STATISTICS		***												
UPBOUNDED STATISTICS		791	29	6	826	3911	452	4373	835	11	2	848	476	
DOWNBOUNDED STATISTICS		667	0	3	836	170	4223	4393	833	15	3	851	4199	
TOTALS		1558	55	9	1662	4081	4685	8766	1668	26	5	1699	4675	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC H4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER						MONTHS REPORTED 7/84 8/84 9/84					
		TOWS	VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGES RECRN	LOCKGES OTHER	LOCKGES TOTAL	TONNAGE (NAV, OPN, ETC)
<b>MONONGAHELA RIVER</b>													
LOCK & DAM 4 AUXILIARY 1		***											
UPBOUND STATISTICS	84	385	51	520	226	35	261	149	278	5	432	35	
DOWNBOUND STATISTICS	64	377	56	497	50	153	203	130	262	5	397	156	
TOTALS	148	762	107	1017	276	188	464	279	540	10	829	191	
MAXWELL LOCK & DAM		***											
UPBOUND STATISTICS	685	449	9	1143	3742	307	4049	692	214	3	909	336	
DOWNBOUND STATISTICS	537	440	9	986	93	3100	3193	547	212	4	763	3370	
TOTALS	1222	889	18	2129	3835	3407	7242	1239	426	7	1672	3409	
MAXWELL LOCK & DAM AUX 1		***											
UPBOUND STATISTICS	54	122	3	179	257	43	300	57	83	2	142	51	
DOWNBOUND STATISTICS	203	159	3	365	39	1135	1174	207	97	0	304	1126	
TOTALS	257	281	6	544	296	1178	1474	264	180	2	446	1177	
LOCK & DAM 7		***											
UPBOUND STATISTICS	677	78	19	774	2883	287	3170	1223	100	5	1328	329	
DOWNBOUND STATISTICS	666	79	34	779	100	3087	3187	1239	103	5	1347	2973	
TOTALS	1343	157	53	1553	2983	3374	6357	2462	203	10	2675	3303	
LOCK & DAM 8		***											
UPBOUND STATISTICS	589	67	30	686	2467	279	2746	1062	87	6	1155	125	
DOWNBOUND STATISTICS	598	69	35	702	146	2677	2823	1103	83	6	1192	1375	
TOTALS	1187	136	65	1388	2613	2956	5569	2165	170	12	2347	1901	
MORGANTOWN LOCK & DAM		***											
UPBOUND STATISTICS	91	131	9	231	358	2	360	100	99	4	203	1	
DOWNBOUND STATISTICS	91	131	9	231	4	347	351	101	101	4	206	249	
TOTALS	182	262	18	462	362	349	711	201	200	8	409	242	
HILDEBRAND LOCK & DAM		***											
UPBOUND STATISTICS	35	109	4	148	118	0	118	39	91	0	130	0	
DOWNBOUND STATISTICS	33	106	6	145	7	111	118	38	93	1	132	116	
TOTALS	68	215	10	293	125	111	236	77	184	1	262	116	



ST. LAWRENCE RIVER - 1984 QUARTERLY REPORT  
 PERIOD 2 - JULY 1984 THROUGH AUGUST 1984  
 SUMMARY OF WATER RESOURCES

WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	MONTHS REPORTED								
				7/84	8/84	9/84	LOCKAGES	LOCKAGES	LOCKAGES	TONNAGE		
WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	VESS	VESS	VESSL	BARG	BARG	BARGES	COMMERC	RECRN	OTHER
WATER LEVEL												
(NAV, OPN, ETC)												
WATER LEVEL												
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TABLE I

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
K7	WILMINGTON	SOUTH ATLANTIC	7/84	8/84	9/84
<hr/>					
RIVER	LCODE-LOCK NAME			LEN/WID/DRAFT (FT/FT/FT)	
CAPE FEAR RIVER	1-LOCK & DAM 1			0200/0040/10.0	
	2-LOCK & DAM 2			0200/0040/10.0	
	3-WILLIAM O HUSKE LOCK & DAM			0300/0040/10.0	
<hr/>					

TABLE I

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROD	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
K6	SAVANNAH	SOUTH ATLANTIC	7/84      8/84      9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
SAVANNAH RIVER	1-NEW SAVANNAH BLUFF LOCK & DAM	0360/0056/12.0

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LEAKAGE FILE FOR THIS PERIOD

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC KS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED											
			7/84			8/84			9/84					
ALL TIMES EXPRESSED IN MINUTES														
			LOCK	PROCESSING	TIME	ENTRY	CHAMBER	EXIT	:	DELAYED	DELAY	DELAY	DELAY	MAX
APPROACH	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	TIME	Avg	(TOWS)	(TOWS)
														(ALL VSSLS)
TENN TOMBIGBEE WATERWAY														
GAINESVILLE LOCK & DAM	1	7	30	1	4	16	5	13	35	1	6	22	:	0
ALICEVILLE LOCK & DAM	1	1	20	1	1	13	5	13	33	1	1	23	:	4
COLUMBUS LOCK & DAM	1	3	32	1	1	20	5	13	50	1	1	10	:	1
ABERDEEN LOCK & DAM	1	2	58	1	1	17	5	15	37	1	1	14	:	0

TABLE I

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC K5	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC						MONTHS REPORTED								
		TOWS			VESSL			BARGS			BARGES			7/84	8/84	9/84
RIVER/LOCK NAME		RECRTN	VESSL OTHER	TOTAL	RECRTN	VESSL OTHER	TOTAL	EMPTY	FULL	TOTAL	COMMER	RECRTN	VESSL OTHER	TOTAL	TONNAGE (NAV, DPN, ETC)	
PEARL RIVER																
LOCK 2		NO DATA RECORDED FOR THIS LOCK														
LOCK 3		NO DATA RECORDED FOR THIS LOCK														
TENN TOMBIGBEE WATERWAY																
GAINESVILLE LOCK & DAM		***														
UPBOUND STATISTICS		20	24	3	47	47	23	70	23	15	9	47	19			
DOWNBOUND STATISTICS		19	29	2	50	7	51	58	23	21	7	51	55			
TOTALS		39	53	5	97	54	74	128	46	36	16	98	75			
ALICEVILLE LOCK & DAM		***														
UPBOUND STATISTICS		10	212	4	226	6	18	24	22	162	22	206	20			
DOWNBOUND STATISTICS		10	212	2	224	7	9	16	20	172	19	211	12			
TOTALS		20	424	6	450	13	27	40	42	334	41	417	32			
COLUMBUS LOCK & DAM		***														
UPBOUND STATISTICS		8	360	7	375	5	14	19	17	249	10	276	18			
DOWNBOUND STATISTICS		8	367	4	379	7	5	12	15	249	8	272	6			
TOTALS		16	727	11	754	12	19	31	32	498	18	548	25			
ABERDEEN LOCK & DAM		*** ONLY FIRST AND SECOND MONTHS REPORTED														
UPBOUND STATISTICS		1	79	0	80	2	0	2	3	51	11	65	2			
DOWNBOUND STATISTICS		1	75	1	77	3	0	3	2	59	10	71	0			
TOTALS		2	154	1	157	5	0	5	5	110	21	136	2			

TABLE 2

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #S	DISTRICT NAME #S	DIVISION NAME SOUTH ATLANTIC						MONTHS REPORTED						
		TOWS			VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL
MISSISSIPPI/TOMBIGBEE RI														
COFFEEVILLE LOCK		***												
UPBOUND STATISTICS		573	56	13	642	2421	356	2777	578	26	14	618	542	
DOWNBOUND STATISTICS		565	59	15	639	148	2603	2751	569	30	12	611	3887	
TOTALS		1138	115	28	1281	2569	2959	5528	1147	56	26	1229	4430	
DEMOPOLIS LOCK & DAM		***												
UPBOUND STATISTICS		545	77	6	588	2337	352	2689	547	19	7	573	520	
DOWNBOUND STATISTICS		547	79	10	596	148	2594	2742	549	21	9	579	3906	
TOTALS		1092	156	16	1184	2485	2946	5431	1096	40	16	1152	4427	
WARRIOR RIVER HEAD OF R DM		***												
UPBOUND STATISTICS		532	6	7	545	2334	323	2657	535	5	1	541	497	
DOWNBOUND STATISTICS		539	6	6	551	144	2558	2702	543	5	0	546	3898	
TOTALS		1071	12	13	1096	2478	2881	5359	1078	10	1	1089	4396	
WILLISTON LOCK & DAM		***												
UPBOUND STATISTICS		566	15	72	593	2344	297	2641	846	14	8	868	405	
DOWNBOUND STATISTICS		566	13	69	582	94	2504	2598	877	8	10	895	3799	
TOTALS		1132	28	141	1175	2438	2801	5239	1723	22	18	1763	4205	
HOLT LOCK & DAM		***												
UPBOUND STATISTICS		500	16	10	526	2359	284	2643	509	12	8	529	399	
DOWNBOUND STATISTICS		480	16	16	512	71	2490	2561	490	9	10	509	3775	
TOTALS		980	32	26	1038	2430	2774	5204	999	21	18	1038	4175	
JOHN H. WILSON HEAD OF R DM		***												
UPBOUND STATISTICS		413	100	12	525	1726	267	1993	418	52	16	486	361	
DOWNBOUND STATISTICS		403	99	15	517	119	1864	1983	414	54	16	484	2838	
TOTALS		816	199	27	1042	1845	2131	3976	832	106	32	970	3200	

PENNS RIVER

LOCK 1 NO DATA RECORDED FOR THIS LOCK

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #5	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC						MONTHS REPORTED						
		TOWS			VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL
<b>ALABAMA-COOSA RIVERS</b>														
CLAIBORNE LOCK & DAM	***													
UPBOUND STATISTICS	78	428	7	513	274	13	287	83	428	4	515	15		
DOWNBOUND STATISTICS	83	440	7	530	14	284	298	90	440	4	534	376		
TOTALS	161	868	14	1043	288	297	585	173	868	8	1049	392		
MILLERS FERRY LOCK & DAM	***													
UPBOUND STATISTICS	81	36	6	123	289	9	298	86	23	0	109	18		
DOWNBOUND STATISTICS	86	51	1	138	16	293	309	87	24	3	114	363		
TOTALS	167	87	7	261	305	302	607	173	47	3	223	382		
JONES BLUFF LOCK & DAM	***													
UPBOUND STATISTICS	7	24	1	32	1	11	12	9	21	0	30	15		
DOWNBOUND STATISTICS	7	31	1	39	8	3	11	10	27	0	37	6		
TOTALS	14	55	2	71	9	14	23	19	48	0	67	16		
<b>APLCH/CATCH/FLNT RI</b>														
JIM WOODRUFF LOCK & DAM	***													
UPBOUND STATISTICS	117	61	15	193	226	63	289	134	37	16	187	121		
DOWNBOUND STATISTICS	123	106	7	236	61	236	297	134	51	16	201	162		
TOTALS	240	167	22	429	287	299	586	268	88	32	388	283		
GEORGE W ANDREWES LOCK & DAM	***													
UPBOUND STATISTICS	26	103	3	132	12	27	39	28	80	2	110	59		
DOWNBOUND STATISTICS	23	149	1	173	25	7	32	27	99	3	129	59		
TOTALS	49	252	4	305	37	34	71	55	179	5	239	59		
WALTER F GEORGE LOCK & DAM	***													
UPBOUND STATISTICS	11	93	1	105	5	12	17	16	56	0	72	20		
DOWNBOUND STATISTICS	10	130	1	141	13	1	14	14	79	2	95	1		
TOTALS	21	223	2	246	18	13	31	30	135	2	167	21		

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #	DISTRICT NAME #	DIVISION NAME	MONTHS REPORTED
		SOUTH ATLANTIC	7/84 8/84 9/84
RIVER	LOCK/LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
ALABAMA-CH RIVERS	11-CLAIBORNE LOCK & DAM	0600/0084/12.0	
	12-MILLERS FERRY LOCK & DAM	0600/0084/12.0	
	13-JONES BLUFF LOCK & DAM	0600/0084/12.0	
APLCH-ATL-PLNT R	21-JIM WOODRUFF LOCK & DAM	0450/0082/12.0	
	22-GEORGE W ANDREWS LOCK & DAM	0450/0082/12.0	
	23-WALTER F GEORGE LOCK & DAM	0450/0082/12.0	
BLKWA-CH-MTSREE R	1-COFFEEVILLE LOCK	0600/0110/12.0	
	2-DEMOPOLIS LOCK & DAM	0600/0110/12.0	
	3-WARRIOR LOCK & DAM	0600/0110/12.0	
	4-WILLIAM BACON OLIVER LF & DM	0460/0095/12.0	
	5-HOLT LOCK & DAM	0600/0110/12.0	
	6-JOHN HOLLIS BANKHEAD LF & DM	0600/0110/12.0	
PEARL R- MS	31-LOCK 1	0310/0065/ 9.0	
	32-LOCK 2	0310/0065/ 9.0	
	33-LOCK 3	0310/0065/ 9.0	
TENN-CH-BUFEE WATERWAY	41-GAINESVILLE LOCK & DAM	0600/0110/12.0	
	42-ALICEVILLE LOCK & DAM	0600/0110/12.0	
	43-COLUMBUS LOCK & DAM	0600/0110/12.0	
	44-ABERDEEN LOCK & DAM	0600/0110/12.0	

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERDC K3	DISTRICT NAME JACKSONVILLE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED 7/84	8/84	9/84
<hr/>					
RIVER	LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)		
CROSS FLA RRG CANL	11-HENRY HOLLAND BUCKMAN LOCK		0600/0084/15.0		
	12-EUREKA LOCK		0600/0084/15.0		
	13-INGLIS LOCK		0600/0084/15.0		
CANAVERAL HARBOR	21-CANAVERAL LOCK		0600/0090/15.0		
OKOEECHOBEE WAIPWAY	1-ST LUCIE LOCK & DAM		0250/0050/14.0		
	2-MOORE HAVEN LOCK		0250/0050/11.0		
	3-ORTONA LOCK & DAM		0250/0050/12.0		
	4-W P FRANKLIN LCK & CTRL STRCT		0400/0056/14.0		
	5-PORT MAYACA LOCK		0400/0056/14.0		
OKLAHOMA RIVER	31-MOSS BLUFF LOCK & DAM		0156/0030/****		
<hr/>					

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED																
			7/84			8/84			9/84										
ALL TIMES EXPRESSED IN MINUTES																			
APPROACH		LOCK PROCESSING TIME			: DELAYED DELAY			DELAY			DELAY								
MIN		ENTRY	: MIN AVG MAX			CHAMBER	: MIN AVG MAX			EXIT	: TOWS TIME			Avg	Max				
MIN		MIN	AVG	MAX	:	MIN	AVG	MAX	:	MIN	AVG	MAX	:	(TOWS)	TOWS				
OHIO RIVER																			
HANNIBAL LOCK + DAM		1	15	55	1	11	29	8	15	30	2	11	26	:	293	13097	15.4	154	
HANNIBAL LOCK + DAM AVG 1		1	10	45	1	4	20	8	15	40	1	7	28	:	9	152	1.3	35	

TABLE 3

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERSC #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER												MONTHS REPORTED					
		APPROACH			LOCK PROCESSING TIME			ENTRY			CHAMBER			EXIT			7/84	8/84	9/84
					MIN	Avg	MAX	MIN	Avg	MAX	MIN	Avg	MAX	MIN	Avg	MAX	(TOWS)	(TOWS)	(TOWS)
ALL TIMES EXPRESSED IN MINUTES																			
MONONGAHELA RIVER																			
MAXWELL LOCK & DAM AUX 1		1	9	37	1	6	31	7	11	43	1	7	26	:	44	695	2.7	53	
LOCK & DAM 7		1	5	45	1	4	21	5	5	45	1	9	48	:	783	43528	32.4	720	
LOCK & DAM 8		1	5	40	1	4	20	5	6	26	1	9	47	:	561	25171	21.1	213	
MORGANTOWN LOCK & DAM		3	5	10	2	5	10	5	10	35	3	5	15	:	0	0	.0	10	
HILDEBRAND LOCK & DAM		1	4	35	1	3	12	7	11	30	1	3	15	:	0	0	.0	10	
OPEKISKA LOCK & DAM		1	5	19	1	2	7	6	10	15	1	3	15	:	2	27	.7	22	
OHIO RIVER																			
EMSWORTH LOCK & DAM		1	12	55	1	7	34	5	14	32	2	9	60	:	695	47535	16.1	340	
EMSWORTH LOCK & DAM AUX 1		1	6	58	1	2	22	5	8	27	1	3	18	:	48	1075	4.0	63	
DASHIELDS LOCK & DAM		1	13	83	2	8	35	5	11	33	1	12	69	:	667	55572	44.3	664	
DASHIELDS LOCK & DAM AUX 1		1	7	46	1	2	19	5	6	36	1	2	21	:	36	615	2.6	41	
MONTGOMERY LOCK & DAM		1	11	70	1	10	43	5	13	44	1	13	58	:	683	65055	54.9	560	
MONTGOMERY LOCK & DAM AUX 1		1	4	39	1	3	19	5	9	40	1	3	22	:	33	495	2.8	70	
NEW CUMBERLAND LOCK & DAM		1	21	57	1	7	28	5	14	35	2	12	36	:	179	8717	17.7	353	
NEW CUMBERLAND LF & DAM AUX		1	10	86	1	4	36	5	13	45	1	9	62	:	200	48763	99.7	969	
PIKE ISLAND LOCK & DAM		1	15	56	1	10	42	7	14	43	2	10	29	:	276	11532	13.3	167	
PIKE ISLAND LOCK & DAM AUX 1	1	8	43	1	3	23	5	12	51	1	6	17	:	37	676	2.7	52		

TABLE

 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

DISTRICT NAME	DIVISION NAME	MONTHS REPORTED											
		7/84			8/84			9/84					
ALL TIMES EXPRESSED IN MINUTES													
		APPROACH	ENTRY	CHAMBER	EXIT	:	DELAYED	DELAY	DELY	DELAY			
		MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	ALL VSSLS)
OHIO RIVER													
LOCK 1000		1	3	23	1	4	22	5	7	17	1	4	58 :
LOCK 1000		1	4	41	1	3	26	5	7	17	1	3	47 :
LOCK 1000		1	4	29	1	3	28	5	8	19	1	4	30 :
LOCK 1000		1	2	21	1	2	22	5	7	19	1	2	21 :
LOCK 1000		1	4	11	2	3	10	5	8	18	1	4	10 :
LOCK 1000		1	2	15	2	3	8	5	7	12	1	3	8 :
LOCK 1000		1	4	16	1	3	10	5	8	18	1	3	25 :
LOCK 1000		1	2	57	1	1	14	5	9	25	1	1	10 :
KANAWHA RIVER													
LOCK 1000		1	2	58	1	5	32	5	11	41	1	7	50 :
LOCK 1000		1	6	58	1	2	26	5	6	29	1	2	68 :
LOCK 1000		1	11	48	2	6	18	7	10	19	1	6	24 :
LOCK 1000 AUXILIARY 1		1	6	32	1	2	33	5	7	18	1	2	14 :
LOCK 1000		1	10	42	1	6	26	5	10	30	1	7	46 :
LOCK 1000 AUXILIARY 1		1	10	34	1	2	15	6	9	19	1	4	23 :
LOCK 1000		1	7	50	1	6	27	5	11	60	1	7	24 :

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERDC H4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER						MONTHS REPORTED 7/84 8/84										
		TOWS			VESSL			BARGS			BARGES			LOCKS				
RIVER/LOCK NAME		RECRTN	OTHER	TOTAL	EMPTY	FULL	TOTAL	COMMER	RECRTN	OTHER	TOTAL	OPEN	LOCKED	OPEN	LOCKED	OPEN	LOCKED	
OHIO RIVER																		
MONTGOMERY LOCK & DAM AUX 1		***																
UPBOUND STATISTICS		98	630	88	816	92	41	133	196	339	7	542	42					
DOWNBOUND STATISTICS		82	641	94	817	77	32	109	184	350	5	534	75					
TOTALS		180	1271	182	1633	169	73	242	380	689	12	1081	119					
NEW CUMBERLAND LOCK & DAM		***																
UPBOUND STATISTICS		342	7	7	356	435	2923	3358	343	0	0	343	475					
DOWNBOUND STATISTICS		296	5	5	306	1994	1101	3095	296	2	0	298	144					
TOTALS		638	12	12	662	2429	4024	6453	639	2	0	641	519					
NEW CUMBERLAND LK & DAM AUX 1		***																
UPBOUND STATISTICS		212	396	32	640	357	735	1092	266	254	4	524	160					
DOWNBOUND STATISTICS		277	394	19	690	784	533	1317	320	249	5	574	612					
TOTALS		489	790	51	1330	1141	1268	2409	586	503	9	1098	152					
PIKE ISLAND LOCK & DAM		***																
UPBOUND STATISTICS		453	3	9	465	350	4436	4786	452	0	0	452	244					
DOWNBOUND STATISTICS		416	2	3	421	2927	1575	4502	415	6	0	415	213					
TOTALS		869	5	12	886	3277	6011	9288	867	0	0	867	458					
PIKE ISLAND LOCK & DAM AUX 1		***																
UPBOUND STATISTICS		103	316	40	459	158	143	301	152	217	5	374	39					
DOWNBOUND STATISTICS		148	335	31	514	317	149	466	189	208	3	400	149					
TOTALS		251	651	71	973	475	292	767	341	425	8	774	518					
HANNIBAL LOCK & DAM		***																
UPBOUND STATISTICS		439	4	5	448	1024	4034	5058	441	2	2	445	563					
DOWNBOUND STATISTICS		409	6	85	500	2202	2689	4891	411	4	2	417	386					
TOTALS		848	10	90	948	3226	6723	9949	852	6	4	862	438					
HANNIBAL LOCK & DAM AUX 1		***																
UPBOUND STATISTICS		44	212	3	259	69	72	141	53	126	4	188	91					
DOWNBOUND STATISTICS		70	207	11	288	125	125	250	85	136	10	231	128					
TOTALS		114	419	14	547	194	197	391	138	262	19	419	220					

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC K7	DISTRICT NAME WILMINGTON	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED											
			7/84			8/84			9/84					
ALL TIMES EXPRESSED IN MINUTES														
			LOCK	PROCESSING	TIME	ENTRY	CHAMBER	EXIT	: TOWS	DELAY	TIME	AVG	DELAY	DELAY
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	(ALL VSSLS)
CAPE FEAR RIVER														
LOCK & DAM 1			5	5	10	5	5	15	5	11	15	5	5	10
LOCK & DAM 2			5	5	10	5	5	5	5	11	30	5	5	10
WILLIAM D HUSKE LOCK & DAM			5	5	10	5	5	5	20	29	30	5	5	5
												0	0	0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
L2	SACRAMENTO	SOUTH PACIFIC	7/84 8/84 9/84

RIVER	LCODE-LOCK NAME	LEN/MID/DRAFT (FT/FT/FT)
SCRMNT BARGE CHNL	1-BARGE CANAL LOCK	0640/0086/23.0

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
M3	GALVESTON	SOUTHWESTERN	7/84      8/84      9/84
<hr/>			
RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)	
GULF INTRACOASTAL	11-COLORADO RIVER EAST LOCK	1200/0075/15.0	
	12-COLORADO RIVER WEST LOCK	1200/0075/15.0	
	13-BRAZOS EAST GATE	9999/0075/15.0	
	14-BRAZOS WEST GATE	9999/0075/15.0	

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC M3	DISTRICT NAME GALVESTON	DIVISION NAME SOUTHWESTERN			MONTHS REPORTED									
					7/84			8/84			9/84			
RIVER/LOCK NAME		TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGSES RECRTN	LCKGSES OTHER	LOCKGS TOTAL	TONNAGE (KTONS)	
(NAV, OPN, ETC)														
GULF INTRACOASTAL														
COLORADO RIVER EAST LOCK		***												
UPBOUND STATISTICS		805	978	160	1943	415	1264	1679	190	0	745	935	2625	
DOWNBOUND STATISTICS		890	1097	79	2066	1227	550	1777	110	0	840	950	992	
TOTALS		1695	2075	239	4009	1642	1814	3456	300	0	1585	1885	3617	
COLORADO RIVER WEST LOCK		***												
UPBOUND STATISTICS		744	1316	162	2222	382	1230	1612	15	0	854	869	2578	
DOWNBOUND STATISTICS		825	1627	77	2529	1192	514	1706	11	0	877	888	929	
TOTALS		1569	2943	239	4751	1574	1744	3318	26	0	1731	1757	3507	
BRAZOS EAST SHREVEPORT		***												
UPBOUND STATISTICS		933	337	288	1558	463	1359	1822	2	0	1184	1166	2593	
DOWNBOUND STATISTICS		1005	305	274	1584	1288	595	1883	4	0	1176	1180	1018	
TOTALS		1938	642	562	3142	1751	1954	3705	6	0	2360	2365	3611	
BRAZOS WEST SHREVEPORT		***												
UPBOUND STATISTICS		899	470	281	1650	450	1342	1792	2	0	1026	1028	2568	
DOWNBOUND STATISTICS		985	515	300	1800	1300	579	1879	2	0	1054	1056	982	
TOTALS		1884	985	581	3450	1750	1921	3671	4	0	2080	2084	3551	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC MJ	DISTRICT NAME GALVESTON	DIVISION NAME SOUTHWESTERN							MONTHS REPORTED								
									7/84	8/84	9/84						
ALL TIMES EXPRESSED IN MINUTES																	
LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY																	
APPROACH		ENTRY	CHAMBER			EXIT	: TOWS TIME AVG MAX										
MIN		AVG	MIN			MAX	: MIN										
GULF INTRACOASTAL																	
COLORADO RIVER EAST LOCK	1	2	17	1	1	18	1	2	43	1	1	10	:	1694	2888	1.7	14
COLORADO RIVER WEST LOCK	1	1	19	1	1	18	1	1	14	1	1	61	:	1568	2968	1.9	10
BRAZOS EAST GATE	1	1	118	1	1	12	1	1	16	1	1	51	:	1930	3246	1.7	541
BRAZOS WEST GATE	1	1	22	1	1	7	1	1	2	1	1	61	:	1879	3102	1.6	391

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC M4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED		
			7/84	8/84	9/84
RIVER ARKANSAS RIVER	LOCK-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)		
	1-NORRELL LOCK & DAM		0600/0110/12.0		
	2-LOCK & DAM 2		0600/0110/12.0		
	3-LOCK & DAM 3		0600/0110/12.0		
	4-LOCK & DAM 4		0600/0110/12.0		
	5-LOCK & DAM 5		0600/0110/12.0		
	6-DAVID D TERRY LOCK & DAM		0600/0110/12.0		
	7-MURRAY LOCK & DAM		0600/0110/12.0		
	8-TOAD SUCK FERRY LOCK & DAM		0600/0110/12.0		
	9-LOCK & DAM 9		0600/0110/12.0		
	10-GARDENELLE LOCK & DAM		0600/0110/12.0		
	11-DZARK LOCK & DAM		0600/0110/12.0		
	13-LOCK & DAM 13		0600/0110/12.0		

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ELOC M4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN						MONTHS REPORTED						
		7/84			8/84			9-84						
RIVER/LOCK NAME	TOWS	VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (NAV, DPN, ETC)		
ARKANSAS RIVER														
NORRELL LOCK & DAM	***													
UPBOUND STATISTICS	171	84	10	265	578	462	1040	183	57	15	255	602		
DOWNBOUND STATISTICS	164	102	7	273	130	837	967	172	64	21	257	1102		
TOTALS	335	186	17	538	708	1299	2007	355	121	36	512	1704		
LOCK & DAM 2	***													
UPBOUND STATISTICS	169	82	13	264	573	435	1008	180	56	15	251	595		
DOWNBOUND STATISTICS	166	101	11	278	127	864	991	174	65	20	259	1163		
TOTALS	335	183	24	542	700	1299	1999	354	121	35	510	1759		
LOCK & DAM 3	***													
UPBOUND STATISTICS	177	203	13	393	569	431	1000	186	132	40	358	594		
DOWNBOUND STATISTICS	171	227	7	405	132	856	988	176	136	42	354	1120		
TOTALS	348	430	20	798	701	1287	1988	362	268	82	712	1715		
LOCK & DAM 4	***													
UPBOUND STATISTICS	176	275	8	459	542	439	981	183	153	28	364	610		
DOWNBOUND STATISTICS	177	295	8	460	135	849	984	183	163	28	374	1137		
TOTALS	353	570	16	939	677	1288	1965	366	316	56	738	1747		
LOCK & DAM 5	***													
UPBOUND STATISTICS	163	575	24	762	433	398	831	172	377	20	569	524		
DOWNBOUND STATISTICS	163	591	5	759	118	715	833	168	379	19	566	1039		
TOTALS	326	1166	29	1521	551	1113	1664	340	756	39	1135	1563		
DAVID B. TERRY LOCK & DAM	***													
UPBOUND STATISTICS	168	918	16	1102	444	393	837	178	528	13	719	520		
DOWNBOUND STATISTICS	168	944	7	1119	128	719	847	173	551	21	745	1079		
TOTALS	336	1862	23	2221	572	1112	1684	351	1079	34	1464	1600		
MURRAY LOCK & DAM	***													
UPBOUND STATISTICS	126	766	31	923	404	342	746	157	471	7	635	445		
DOWNBOUND STATISTICS	122	777	37	936	92	656	748	157	460	7	624	960		
TOTALS	248	1543	68	1859	496	998	1494	314	931	14	1259	1405		

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ERDC #4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN		MONTHS REPORTED										
				7/84			8/84			9/84				
RIVER/LOCK NAME		TOWS	VESSL RECRN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCK6S COMMER	LOCK6S RECRN	LOCK6S OTHER	LOCK6S TOTAL	TONNAGE (INAV, OPN, ETC)	
<b>ARKANSAS RIVER</b>														
TOAD SUE FERRY LOCK & DAM	***													
UPBOUND STATISTICS	130	93	1	224	406	362	768	133	68	15	216	464		
DOWNBOUND STATISTICS	122	141	4	267	91	641	732	126	102	17	245	943		
TOTALS	252	234	5	491	497	1003	1500	259	170	32	461	1407		
LOCK & DAM 3	***													
UPBOUND STATISTICS	124	90	1	215	396	337	733	127	70	16	213	440		
DOWNBOUND STATISTICS	122	131	3	256	93	651	744	123	84	15	222	973		
TOTALS	246	221	4	471	489	988	1477	250	154	31	435	1414		
DARDENNELLE LOCK & DAM	***													
UPBOUND STATISTICS	128	139	1	268	401	330	731	131	107	26	264	426		
DOWNBOUND STATISTICS	124	187	5	316	80	651	731	129	138	27	294	1003		
TOTALS	252	326	6	584	481	981	1462	260	245	53	558	1429		
CAZIER LOCK & DAM	***													
UPBOUND STATISTICS	123	117	2	242	389	329	718	127	71	10	206	426		
DOWNBOUND STATISTICS	122	151	4	277	80	651	731	127	90	10	227	960		
TOTALS	245	268	6	519	469	980	1449	254	161	20	435	1386		
LOCK & DAM 17	***													
UPBOUND STATISTICS	170	192	3	365	396	436	832	175	125	11	311	476		
DOWNBOUND STATISTICS	165	227	3	395	174	653	827	170	141	14	325	959		
TOTALS	335	419	6	760	570	1089	1659	345	266	25	636	1435		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROC M4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED														
														7/84	8/84	9/84	
														ALL TIMES EXPRESSED IN MINUTES			
APPROACH														LOCK PROCESSING TIME	: DELAYED		DELAY
MIN														ENTRY	CHAMBER	EXIT	TIME
MIN														MIN	AVG	MAX	Avg
MAX														MAX	: (TOWS)		MAX
														MIN	AVG	MAX	(ALL VSSLS)
ARKANSAS RIVER																	
NORRELL LOCK & DAM	1	8	40	1	9	81	5	10	27	1	9	50	:	34	981	2.9	89
LOCK & DAM 2	1	8	37	1	9	77	5	12	86	1	10	45	:	78	3391	10.1	185
LOCK & DAM 3	1	8	40	1	7	40	5	10	75	1	8	43	:	44	1520	4.4	150
LOCK & DAM 4	1	7	44	1	5	28	5	11	58	1	7	45	:	38	1086	3.1	130
LOCK & DAM 5	1	6	50	1	4	34	5	10	28	1	6	73	:	110	1920	5.9	156
DAVID D TERRY LOCK & DAM	1	5	40	1	4	33	5	10	32	1	5	54	:	104	2766	8.2	160
MURRAY LOCK & DAM	1	3	50	1	3	37	8	10	30	1	4	42	:	56	1212	4.9	157
TOAD SUCK FERRY LOCK & DAM	1	9	48	1	7	36	5	10	40	1	8	47	:	71	1185	4.7	110
LOCK & DAM 9	1	12	54	1	7	38	5	12	47	1	8	32	:	44	603	2.5	123
DARDANELLE LOCK & DAM	1	8	51	1	6	45	5	13	51	1	6	35	:	220	2088	8.3	90
OZARK LOCK & DAM	1	10	105	1	9	40	5	12	35	1	9	30	:	193	2049	8.4	120
LOCK & DAM 10	1	7	30	1	6	27	5	12	28	1	8	42	:	80	1622	4.8	98

TABLE I

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
MS	JULSA	SOUTHWESTERN	7/84 8/84 9/84
RIVER	LCODE-LOCK NAME		
ARKANSAS RIVER	21-W D MAYO LOCK & DAM	LEN/WID/DRAFT (FT/FT/FT)	0600/0110/14.0
	22-ROBERT S KERR LOCK & DAM &RES		0600/0110/14.0
	23-WEBBERS FALLS LOCK & DAM		0600/0110/14.0
	24-CHOUTEAU LOCK & DAM		0600/0110/14.0
	25-NEWT GRAHAM LOCK & DAM		0600/0110/14.0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
 FOR THE PERIOD 7/84 THROUGH 9/84  
 INSTITUTE FOR WATER RESOURCES

ELOC MS	DISTRICT NAME TULSA	DIVISION NAME SOUTHWESTERN			MONTHS REPORTED							
					7/84		8/84		9/84			
RIVER/LOCK NAME		TOWS RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	TONNAGE (NAV, DPN, ETC)	
ARKANSAS RIVER												
W D MAYO LOCK & DAM	***											
UPBOUND STATISTICS	124	283	1	408	380	306	686	127	106	8	241	
DOWNBOUND STATISTICS	119	343	4	466	62	598	660	123	128	9	269	
TOTALS	243	626	5	874	442	904	1346	250	234	17	501	
ROBERT S KERR LOCK & DAM & RES	***											
UPBOUND STATISTICS	124	268	0	392	387	299	686	124	167	13	304	
DOWNBOUND STATISTICS	120	308	2	430	62	604	666	124	197	12	333	
TOTALS	244	576	2	822	449	903	1352	248	364	25	637	
WEBBERG FALLS LOCK & DAM	***											
UPBOUND STATISTICS	107	86	3	196	256	303	559	111	57	12	180	
DOWNBOUND STATISTICS	101	103	5	209	77	446	523	109	64	13	186	
TOTALS	208	189	8	405	333	749	1082	220	121	25	366	
CHOUTEAU LOCK & DAM	***											
UPBOUND STATISTICS	105	54	4	163	261	218	479	110	40	8	158	
DOWNBOUND STATISTICS	103	64	7	174	72	411	483	113	43	8	164	
TOTALS	208	118	11	337	333	629	962	223	83	16	322	
NEWT GRAHAM LOCK & DAM	***											
UPBOUND STATISTICS	101	53	4	158	236	218	454	104	44	7	155	
DOWNBOUND STATISTICS	103	63	6	172	78	396	474	111	47	7	165	
TOTALS	204	116	10	330	314	614	928	215	91	14	320	

TERRE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT  
FOR THE PERIOD 7/84 THROUGH 9/84  
INSTITUTE FOR WATER RESOURCES

EROD DISTRICT NAME DIVISION NAME MONTHS REPORTED  
 MS 104 SOUTHWESTERN 7/84 8/84 9/84  
 -----  
 ALL TIMES EXPRESSED IN MINUTES  
 APPROACH ENTRY CHAMBER EXIT : DELAYED DELAY DELAY DELAY  
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (ALL VSSLS)  
 -----  
 M-104 RIVER  
 W 0 MAY 104-9 DAM 1 9 45 1 7 37 5 11 25 1 8 44 : 18 329 1.4 73  
 ROBER 104-9 DAM 1 5 31 1 6 37 9 14 26 1 7 45 : 32 1003 4.1 141  
 WEBBER 104-9 DAM 1 12 65 1 8 30 5 18 46 1 8 32 : 112 2076 10.0 130  
 CHOUTEAU 104-9 DAM 1 6 36 1 7 32 6 15 28 1 9 34 : 72 505 2.4 57  
 NEWT GRAHAM 104-9 DAM 1 9 36 1 7 40 5 13 23 1 11 40 : 34 720 3.5 120

## Appendix B

### Glossary

**Draft** This is not a physical lock dimension. It is compared with new data before they are added to the central library to ensure that vessel drafts are not recorded improperly.

**Tows** Only tows with barges are included with this figure. Tows without barges, (light boats) and other commercial vessels are counted as "other vessels."

**Other vessels** All vessels other than tows with barges and recreational vessels.

**Commercial lockages** The number of lockages for which the prime mover is a tow, a light boat or another commercial vessel.

**Recreational lockages** The number of lockages during which there are only recreational vessels using the lock.

**Other lockages** The number of lockages during which the prime mover is a government vessel, a government contracted vessel (such as a dredge) or an unidentified type of vessel. Also included in this category are navigable and open pass lockages.

**Total lockages** A lockage includes all lock activity necessary to process a tow and is counted only once when more than one vessel uses the lock. Thus, both cuts of a double cut lockage (e.g. only part of the tow will fit in the lock and it is necessary to process the tow in two pieces) count as a single lockage together and the count increases by only one when two tows are processed during a single lockage.

**Processing time** Only the times needed to process tows with barges are included in these statistics.

**Delayed vessels** Number of tows experiencing delay between arrival time and the time the lock is ready to process them.

**Average delay** Average time of delay for all tows.

**Maximum delay** Maximum delay time for vessels. This figure may reflect a single, extraordinary circumstance and should be evaluated accordingly.

**END**

**FILMED**

**4-85**

**DTIC**